

THE WAL-MART EFFECT ON ORGANICS: A DEFENSE OF LARGE-SCALE ORGANIC PRODUCTION

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“The idea that each corporation can be a feudal monarchy and yet behave in its corporate action like a democratic citizen concerned for the world we live in is one of the great absurdities of our time—”

-Kim Stanley Robinson, *Antarctica*¹

INTRODUCTION

For better or worse, corporate America has now joined the organic movement, and such irony is aptly displayed by the organic foods that are stocked on shelves alongside conventional foodstuffs at Wal-Mart² and many other mainstream retailers. This scene is in many ways paradoxical: the organic movement came into existence as a response to the rampant use of industrial compounds in agriculture, and contemporary organic production methods were devised as a means to return to a natural food supply.³ As the organic movement matured, it developed a counter-culture, anti-corporate existence that moved away from the influences of behemoth corporate retailers and producers.⁴ Thus, organic food production took shape without the intense price pressures and fierce competition that pervade conventional large-scale agriculture. However, by the 1990s, a surprising trend emerged – consumer demand for organics increased just

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1. KIM STANLEY ROBINSON, *ANTARCTICA* 603 (1999).

2. *In Depth Record: Wal-Mart Stores, Inc.*, HOOVER’S, INC. (2013) (providing company description and key financial figures).

3. See Melanie Warner, *Wal-Mart Eyes Organic Foods, and Brand Names Get in Line*, N.Y. TIMES, May 12, 2006, at A1 (“Organic agriculture arose in the 1970’s as a reaction to large-scale farms that confined animals and the increased use of pesticides and chemical fertilizers on crops. Many advocates of organic produce consider conventional agriculture to be harmful to the environment and to human health.”).

4. See *id.* ([T]he organic movement has now become “a multifaceted symbol representing everything from quality to health to ideology, and everything in between.”).

enough that large corporations took notice and saw profit potential in the industry.⁵

Alongside Wal-Mart, a number of large retailers and producers have now come to dominate the organic industry, bringing rise to “corporate organics.” “Corporate organics” are defined herein as organic foods farmed or produced by large food manufacturers for sale at mainstream corporate retailers. Large food retailers such as Target, Harris Teeter, and Kroger have operated in-house organic brands similar to the stores’ discount labels for several years,⁶ while conventional food manufacturers such as Kellogg’s, Pepsi-Co, and Kraft have acquired numerous independent organic companies over the past decade in an effort to profit from growing interest in organic foods.⁷ Unsurprisingly, many consumers and public interest groups are skeptical of these retailers’ motives and dedication to organic production.⁸ To some, the interest in organics by Wal-Mart and other retailers represents little more than a marketing ploy to improve the company’s image and to bolster profits.⁹ Due to the political clout carried by these corporations, coupled with mistrust of large-scale organic production, many believe substantial reform of organic regulation and oversight is necessary to maintain the quality of organic foods.¹⁰ Without additional safeguards, they argue, the increasing prevalence of corporate organics may render the USDA Organic label a deceptive and inconsistent signifier of quality, thereby confusing what it means to purchase “organic.”¹¹

While the rapid growth of the organic industry will present challenges for the National Organic Program (“NOP”),¹² the advantages associated

5. *Id.*

6. *E.g.*, HARRIS TEETER NATURALS, http://www.harristeeter.com/in_our_stores/our_brands/harris_teeter_naturals.aspx (last visited Apr. 13, 2013).

7. *See, e.g.*, Judith Yates Borger, *Lawsuit Over Target’s Milk Raises Bigger Issue: Are Large Production Farms ‘Organic’?*, MINN. POST (Dec. 21, 2007), <http://www.minnpost.com/politics-policy/2007/12/lawsuit-over-targets-milk-raises-bigger-issue-are-large-production-farms-org>. *See generally* *In re Aurora Dairy Corp. Organic Milk Mktg. & Sales Practices Litig.*, 621 F.3d 781 (8th Cir. 2010).

8. *See e.g.*, Barry Yeoman, *The Wal-Mart Effect*, AUDUBON MAG., <http://archive.audubonmagazine.org/business/business0705.html> (last visited Apr. 13, 2013) (Karen Burk, Wal-Mart spokesperson stated “[w]e’re agents for our customers, . . . [w]e believe both organic and conventional agriculture provide sustainable products. We will not say one offering is better than another.”).

9. Warner, *supra* note 3.

10. *See, e.g.*, A. Christine Green, *The Cost of Low-Price Organics: How Corporate Organics Have Weakened Organic Food Production Standards*, 59 ALA. L. REV. 799, 828 (2008). *See also* Diane Brady, *The Organic Myth*, BLOOMBERG BUSINESSWEEK MAG. (Oct. 15, 2006), <http://www.businessweek.com/stories/2006-10-15/the-organic-myth>.

11. *See* Green, *supra* note 10, at 830.

12. *See* 7 C.F.R. § 205.2 (2010) (defining the NOP as the regulatory scheme overseeing organic

with large-scale organic production, including expanding organic food access to population groups previously unable to purchase organics and lowering cost premiums, exceed such drawbacks. Since “diluted” or “lower-quality” varieties of organic foods¹³ contain on average fewer pesticides and contaminants than conventional products, the spread of low-cost organics will help to lower pesticide exposure in at-risk and lower-income populations, who often have no choice but to buy conventional foods.¹⁴ Given that cost and price-sensitivity remain major factors hindering organic purchases, the recent corporate interest in developing and retailing organic items may be the impetus the organic industry needs after all. Though concerns of contamination and sub-optimal agricultural practices will likely continue, bolstering and refining NOP policies can help ensure that organics retain their quality and integrity in large-scale agricultural settings.¹⁵

I. TRENDS IN ORGANIC CONSUMPTION AND SALE

The United States organic industry has recently been characterized by dramatic shifts in production, consumption, and retailing. Consumers have become increasingly likely to purchase organic items from mainstream stores. Organics sold at major retailers are likely to have been produced by large food manufacturers, often selling the product under the label of a formerly-independent organic brand.¹⁶ Additionally, income disparities in the current economy have contributed to organics becoming a product for educated, affluent white persons, who can afford the price markup over

food production standards).

13. Warner, *supra* note 3. See also Green, *supra* note 10. There is concern that Wal-Mart and other corporate entities that enter the organic market will be encouraged to cut input costs by lowering production standards and purchasing organic ingredients from nations with lower organic standards. Still, studies indicate that organic products, even if of somewhat inferior quality, contain fewer pesticides than conventional products. *Id.*

14. See Travis A. Smith, Chung L. Huang & Bling-Hwan Lin, *Does Price or Income Affect Organic Choice? Analysis of U.S. Fresh Produce Users*, 41 J. AGRIC. & APPLIED ECON. 731, 736–37 (2009) (describing the role of income in organic purchases). See also Ian Yarett & Jesse Ellison, *Divided We Eat*, NEWSWEEK (Nov. 22, 2010), <http://mag.newsweek.com/2010/11/22/what-food-says-about-class-in-america.html>.

15. See sources cited *supra* note 14. Regulations should be aimed at limiting corporate producers' ability to short-change production standards and thereby risk contaminating products. *Id.*

16. Steve Mills, *Organic Foods: Big Companies Swoop in to Capitalize on Lucrative Market*, CHI. TRIB. (Aug. 19, 2009), http://articles.chicagotribune.com/2009-08-19/news/0908180620_1_organic-foods-cascadian-farm-small-planet-foods (“Today the big players in organic foods include such companies as Dean Foods and General Mills, Kellogg’s and Cargill, although you might not see their names on the labels.”).

conventional products.¹⁷

Whereas only a couple of decades ago organics were sold almost exclusively in natural food stores, consumers are now purchasing organic items at mainstream retailers alongside their other groceries and household items.¹⁸ For instance, Wal-Mart has become one of the largest organic retailers in the U.S.,¹⁹ and other top organic retailers include corporate giants Costco, Kroger, SuperTarget, Safeway, and Whole Foods.²⁰ A U.S. Department of Agriculture (“USDA”) study found that, in 1991, only 7% of organic foods were sold in conventional stores,²¹ yet by 2005, conventional retailers sold 46% of organic foods and 76% of organic milk.²²

In addition to a shift toward mainstream retailing, large food companies now produce both organic and conventional foods. Among food manufacturers, Kraft, Heinz, Kellogg’s, Coca-Cola, and Pepsi-Co now lead the market in organic food production following acquisitions of independent organic labels.²³ This trend has also extended to non-edible items and is notably evidenced by the Clorox Company’s 2007 purchase of Burt’s Bees.²⁴ Thus, “cottage industry” brands are often owned by larger food producers that profit from both organic and conventional product sales. What is more, the product’s packaging and branding may downplay this association.²⁵ For instance, conventional manufacturers Kellogg’s and Pepsi-Co own “alternative” brand labels such as Kashi, Naked Juice, and

17. See Ramu Govindasamy & John Italia, *Predicting Willingness-to-Pay a Premium for Organically Grown Fresh Produce*, 2 J. FOOD DISTRIB. RES. 44, 52 (1999) (discussing the role of education and income in predicting willingness to purchase organics).

18. See CAROLYN DIMITRI & LYDIA OBERHOLTZER, U.S. DEP’T OF AGRIC. ECON. RES. SERV., *MARKETING U.S. ORGANIC FOODS: RECENT TRENDS FROM FARMS TO CONSUMERS* (2009), at iii (“By 2008, nearly half of all organic foods were purchased in conventional supermarkets, club stores, and big-box stores.”).

19. See Jennifer Chait, *6 Largest Organic Retailers in North America 2011*, ABOUT.COM GUIDE, <http://organic.about.com/od/marketingpromotion/tp/6-Largest-Organic-Retailers-In-North-America-2011.htm> (last visited Nov. 9, 2013).

20. *Id.*

21. CAROLYN DIMITRI & KATHRYN M. VENEZIA, U.S. DEP’T OF AGRIC. ECON. RES. SERV., *RETAIL AND CONSUMER ASPECTS OF THE ORGANIC MILK MARKET* 6 (2007).

22. *Id.*

23. See Green, *supra* note 10, at 805–06 (“Major corporations such as Kraft, Heinz, Dean Foods, General Mills, and Kellogg[’s], if not already on the organic bandwagon due to consumer demand, have responded to Wal-Mart’s pledge by either creating their own line of organics or taking over smaller organic production companies in order to supply Wal-Mart, and other major food retailers like Target.”).

24. *Company FAQs – Burt’s Bees*, BURT’S BEES, <http://www.burtsbees.com/c/root-company-faqs-burt-s-bees.html#4> (last visited Apr. 13, 2013).

25. See Stephanie Strom, *Has ‘Organic’ Been Oversized?*, N.Y. TIMES, July 8, 2012, at BU1.

Bear Naked, though the packaging bears little indication of an affiliation.²⁶ Despite the benefits conferred by larger retailers' purchases of smaller organic companies,²⁷ independent brands are quickly being priced out of the market. In fact, only a handful of independent organic companies, such as Amy's Kitchen and Clif Bar & Company, currently operate without the affiliation of a larger conventional company.²⁸

Although trends in organic production and sale are changing rapidly, the demographic of the typical organic consumer has not.²⁹ USDA research suggests that organic consumers are likely to be white, relatively affluent, and possess at least some college education.³⁰ Nearly all studies have correlated college education to organic food purchases.³¹ Nevertheless, some studies have failed to establish a direct linkage between advanced post-graduate studies and willingness to purchase organics, as compared to individuals with some college education.³² Similarly, families with children under the age of 18 are more likely to purchase organics than those without children.³³

Despite USDA's findings, some studies have indicated that modest income and minority individuals would be interested in purchasing organics if they were more affordable.³⁴ Though income is strongly

26. See *id.* (noting that Kellogg's owns Kashi and Bear Naked, while Pepsi-Co owns Naked Juice).

27. See *id.* Advantages may include lowering prices, expanding access and developing greater production efficiency.

28. *Id.*

29. See Smith, Huang & Lin, *supra* note 14, at 736–37 (outlining relationship between education and income with organic purchases). See also John Cloud, *Eating Better Than Organic*, TIME MAG. (Mar. 2, 2007), <http://www.time.com/time/magazine/article/0,9171,1595245,00.html>. But see Nikoleta Panteva & Agata Kaczanowska, IBISWORLD, THE NEW LUXURY 3 (2012), available at <http://www.ibisworld.com/Common/MediaCenter/The%20New%20Luxury.pdf>. Some research suggests that up to 25% of consumers purchase organics weekly. *Id.* at 1.

30. See DIMITRI & VENEZIA, *supra* note 21, at 11 (“[T]he demographic data indicate that organic households are most likely to live in the West or East, be headed by someone age 54 or younger, have a college degree, and have annual household incomes of at least \$70,000.”).

31. See Smith, Huang & Lin, *supra* note 14, at 736 (“With respect to educational attainment, the largest proportion of organic produce users, especially vegetable users, have at least a college degree while the largest proportion of nonusers have only a high school diploma or less.”).

32. See *id.* at 10–11.

33. Rachael L. Dettman & Carolyn Dimitri, *Who's Buying Organic Vegetables? Demographic Characteristics of U.S. Consumers*, 16 J. FOOD PRODS. MKTG. 79, 82 (2010). See also Govindasamy & Italia, *supra* note 17, at 52.

34. John Stevens-Garmon, Chung L. Huang & Biing-Hwan Lin, *Organic Demand: A Profile of Consumers in the Fresh Produce Market*, 22 CHOICES MAG. 109, 110 (2007) (“The fact that mainstream grocery stores are replacing the specialty food stores as the major outlets for organic foods could explain the seemingly fading relationship between organic expenditure and household income.”). See also DIMITRI & OBERHOLTZER, *supra* note 18, at iii–iv. (“The much-talked-about changing face of

correlated with organic purchases, a large number of consumers are price-sensitive purchasers whose preferences shift markedly as prices change, thus indicating the elasticity of demand for organics.³⁵ In 2008, the Hartman Group found that 69% of adults, regardless of income, purchase organic foods “at least occasionally.”³⁶

Additionally, some consumers may revert to conventional products during times of economic downturn. Price-conscious consumers may purchase organic foods in a favorable economic climate and choose conventional foods when the economy is weak. This relationship between the U.S. economy and organic purchases has been illustrated by industry studies. For example, the Hartman Group found that in 2002, half of organic purchasers were minority and of moderate income.³⁷ In 2002, the U.S. maintained a low unemployment rate at 6.0%.³⁸ During the 2008–10 economic recession unemployment rose to 9.7%,³⁹ and organic sales dropped sharply⁴⁰ following mass layoffs and price increases in other industries.⁴¹ This trend suggests that moderate income and minority individuals are more likely to purchase organics when they fit reasonably

the organic consumer seems more apparent when examining the share of milk expenditures devoted to organic across different groups. . . . [and] the variety in the types of consumers buying organic milk suggests that the market continues to expand.”)

35. See *Youngest Adults Drive Growth of Organic Foods and Beverages: Walnut Acres Releases Second Annual “Walnut Acres Certified Organic Future” Study*, WALNUT ACRES (Apr. 9, 2002), http://www.walnutacres.com/news_view.php?id=14 (finding that “[n]early [8] in 10 (78%) 18-24 year-olds believe that consuming organic foods and beverages is a smart choice for long-term health and wellbeing, compared to 59% of adults overall,” indicating that consumer demand will likely remain strong for some time as this demographic matures).

36. DIMITRI & OBERHOLTZER, *supra* note 18, at 3 (also noting that 19 percent of consumers purchased organic food weekly in 2008, which is an increase from 3 percent as was measured in the 1990s).

37. See Stevens-Garmon, Huang & Lin, *supra* note 34, at 109.

38. GOV’T PRINTING OFFICE, SELECTED UNEMPLOYMENT RATES (2009), available at <http://www.gpo.gov/fdsys/pkg/ECONI-2002-12/pdf/ECONI-2002-12-Pg12.pdf> (describing U.S. unemployment rate as 6.0 percent).

39. BUREAU OF LAB. STAT., U.S. DEP’T OF LAB., NEWS RELEASE: REGIONAL AND STATE EMPLOYMENT AND UNEMPLOYMENT—MAY 2010 1 (2010), available at http://www.bls.gov/news.release/archives/laus_06182010.pdf (describing U.S. unemployment rate as rising to 9.7 percent from 9.4 percent).

40. *Organics Today: Who’s Buying and What’s Next*, HARTMAN GRP. (July 23, 2008), <http://www.hartman-group.com/hartbeat/2008-07-23> (“[A]ggregate consumer use of organics . . . dropped four percentage points from 73% of the population buying organics in 2006, to 69% in 2008.”).

41. See Keith Naughton, *Natural Response*, NEWSWEEK, May 12, 2008, at 48 (“In a new survey by WSL Strategic Retail, only 27 percent of shoppers thought organics were worth the money—even though most agreed they are healthier.”). See also *Where Did the Walmart Shopper Go?*, WSL/STRATEGIC RETAIL (2011), available at <http://wslstrategicretail.com/uploads/articles/11/detail/4e5e101d043360.23860706.pdf>.

within these individuals' incomes.⁴² Recently, other reasons that consumers do not purchase organics include the increased competition by artesian and natural products, confusion between "organic," "natural," and similar labels,⁴³ as well as various organic product recalls.⁴⁴ Therefore, the increased emphasis that some corporate retailers have placed on developing store brand labels may help to make organics accessible to consumers even in tough economic conditions.⁴⁵

In sum, while the organic industry has experienced significant changes in retailing and production, the price premiums on organics and confusion between "organic," "natural," and similar terms continue to restrict purchases to the educated and affluent. Though higher quality inputs have raised production costs, the price markup on organics is largely due to the NOP's stringent organic certification requirements.

II. REGULATION OF THE U.S. ORGANIC INDUSTRY

The Organic Food Production Act of 1990 established the NOP, which develops and outlines a rigorous framework to maintain the quality of certified organic products.⁴⁶ The Act establishes national standards governing organic production, regulation, and oversight, thereby ensuring the consistency of organics.⁴⁷

The NOP, overseen by the Agricultural Marketing Service of USDA, sets forth numerous standards that a product must meet before it may officially be labeled "organic." First, the Act creates the National Organic Standards Board ("Board"), a council that provides recommendations for the NOP and helps to devise standards for organic substances.⁴⁸ The Board oversees the review of scientific evaluations pertaining to the safety of organic and non-organic substances approved for use and assists the

42. See Stevens-Garmon, Huang & Lin, *supra* note 34, at 112 ("Price plays an important role in consumers' purchase decisions.").

43. *FMI Backgrounder: Natural and Organic Foods*, FOOD & DRUG ADMIN. 1 (2008) ("The term 'natural' . . . applies broadly to foods that are minimally processed and free of synthetic preservatives; artificial sweeteners, colors, flavors and other artificial additives; growth hormones; antibiotics; hydrogenated oils; stabilizers; and emulsifiers. Most foods labeled natural are not subject to government controls beyond the regulations . . . that apply to all foods."). On the contrary, the term 'organic' describes a food's purity through the process by which the food has been produced. *Id.*

44. See HARTMAN GRP., *supra* note 40, at 1–3. See also Naughton, *supra* note 41, at 48.

45. See *Higher Unit Prices, Not Volume, Behind Rapid Growth of U.S. Private Label Sales*, NIELSEN (June 4, 2008), http://www.nielsen.com/us/en/press-room/2008/nielsen_higher_unit.html.

46. See Organic Foods Production Act of 1990, 7 U.S.C. § 6501–6522 (2012).

47. § 6501(1)–(2).

48. § 6518.

Secretary of Agriculture (“Secretary”) in making decisions.⁴⁹ The Board’s diverse membership invites a wide variety of perspectives when setting forth organic production standards.⁵⁰ The 15-member Board includes organic farmers, handlers, an organic product retail establishment operator, environmental conservationists, consumer interest representatives, a scientist, and a certifying agent.⁵¹ Board members are appointed by the Secretary⁵² for a 5-year term and cannot serve back-to-back terms.⁵³ Additionally, Board members are not compensated for their service.⁵⁴

Next, 7 U.S.C. § 6517 authorizes the Board to create the “National List,” which itemizes the non-organic substances that are permitted in organic agriculture, and the Board may periodically propose amendments to the list.⁵⁵ In order to authorize use of a non-organic substance in organic products, the Board must recommend approval of the substance to the Secretary, who then may approve or deny its use.⁵⁶ A non-organic substance may only be included in the National List if a natural substitute is unavailable⁵⁷ and the substance is necessary for agricultural production or handling.⁵⁸

Despite setting forth rigid requirements for organic production, the NOP did not create a review and certification mechanism. Instead, the NOP conferred this responsibility on third-party certifying agents who determine whether a farm has met NOP requirements.⁵⁹ There are currently 84 certifying agents in existence, 49 of which operate domestically.⁶⁰ Many states also have their own reduced-price certification program.⁶¹

49. *Id.*

50. *See id.* § 6518(b). *See also* NOSB POLICY AND PROCEDURES MANUAL, U.S. DEP’T OF AGRIC. 8 (2012), available at <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3013893> (outlining voting procedures and conflicts checks).

51. § 6518(b).

52. § 6518(c).

53. § 6518(d).

54. § 6518(f).

55. § 6517.

56. § 6517(d)–(e).

57. § 6517(c)(1)–(2). Here, “natural” is used to describe an organic or non-synthetic substance.

58. *Id.*

59. § 6503(d).

60. *USDA Accredited Certifying Agents (ACAs)*, U.S. DEP’T OF AGRIC., AGRIC. MKTG. SERV. <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateJ&leftNav=NationalOrganicProgram&page=NOPACAS&description=USDA%2520Accredited%2520Certifying%2520Agents> (last updated Nov. 10, 2013).

61. CATHERINE GREENE, U.S. DEP’T OF AGRIC. ECON. RES. SERV., *USDA ACCREDITED CERTIFYING AGENTS (ACAS) 37* (2007). Domestically, nearly all states have some degree of organic farming in operation, though organic farming continues to comprise only .5 percent of all U.S. cropland. *Id.*

III. DEVELOPING AND LABELING AN ORGANIC PRODUCT

Farmers and food producers must also take action to meet NOP requirements to market their products as organic. To sell and label a product as USDA Organic, the item must (1) be produced on a certified organic farm, (2) be handled by a certified organic handler, and (3) meet organic production process standards.⁶² The NOP also prohibits a number of conventional farming practices for use in organic agriculture.⁶³ For instance, a farmer may not “use any fertilizers containing synthetic ingredients or any commercially blended fertilizers” that contain banned chemicals.⁶⁴ Other prohibited substances include, but are not limited to, nitrogen sources, arsenic, lead salts, and other natural poisons.⁶⁵ Analogous requirements apply to meat and dairy producers, and additional standards are set forth⁶⁶ dictating how an animal must be raised and handled for the final product to qualify as organic.⁶⁷

In order to become a certified organic farm, a farmer or handler must undergo a multi-year certification process,⁶⁸ which may be costly.⁶⁹ Section 7 U.S.C. § 6513 lays out the steps a farmer or producer must undertake. The farmer must first provide an “organic plan” to a certifying agent describing how the land will be rendered suitable for organic agriculture, and the agent shall review the plan to determine if it meets organic standards and proposes adequate safeguards against contamination by prohibited substances.⁷⁰ The farmer must also provide evidence that the land has been free of prohibited substances for the previous three years.⁷¹

62. § 6506(1)(a)–(b).

63. § 6508; 7 C.F.R. §§ 205.201–05, 205.237–39 (detailing affirmative organic process requirements).

64. § 6508(1)–(2).

65. § 6508(b)–(c).

66. Subject to the exception in 7 U.S.C. § 6509(e)(2)(B).

67. § 6509(e)(2)(A); see *Organic Agriculture: 2008 Farm Act Provisions*, ECON. RES. SERV., U.S. DEP’T OF AGRIC., <http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture/2008-farm-act-provisions.aspx> (last updated June 18, 2012).

68. DIMITRI & OBERHOLTZER, *supra* note 18, at 11–12.

69. See Andrew Martin & Kim Severson, *Sticker Shock in the Organic Aisles*, N.Y. TIMES, at C1 (For instance, explaining his decision to end organic farming, Maine dairy farmer Doug Hartkopf stated that “Instead of paying \$3,000 a month, I was paying \$7,000 It was a very tough decision. It was something we had to do.”) See generally Ika Darnhofer, Walter Schneeberger & Bernhard Freyer, *Converting or Not Converting to Organic Farming in Austria: Farmer Types and Their Rationale*, 22 J. AGRIC. & HUM. VALUES 39 (2005) (noting that price considerations play a large role when transitioning to organic methods).

70. § 6513.

71. § 6513(f)(2). See also *Organic Agriculture: Organic Policy*, U.S. DEP’T OF AGRIC. ECON. RES. SERV., <http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture/organic->

Organic product labeling requirements are similarly stringent and are designed to ensure that a product's label accurately represents its organic content. Specifically, the term "organic" may be used only on those items containing no less than 95% organic ingredients.⁷² Products that purport to be "made with organic ingredients" must be comprised of no less than 70% organic ingredients.⁷³ If a product contains less than 70% organic ingredients, the USDA seal or other organic certification may not be used on the item.⁷⁴

The foregoing standards demonstrate that the NOP is, at least in theory, committed to maintaining the integrity and quality of organics sold in the U.S. Nonetheless, there are substantial issues policymakers must grapple with going forward, including growing disparities between large and smaller farming operations, as well as ensuring that foreign certified organics meet the same standards as domestic production.

IV. CORPORATE PLAYERS' INFLUENCE ON THE ORGANIC INDUSTRY

The entrance of corporate players may cause broad-based structural changes to the organic market, which may lead the industry toward greater efficiency and productivity while simultaneously lowering prices.⁷⁵ In order to meet rising demand and produce organics more cheaply, food manufacturers may transition to large-scale agricultural operation. Organic imports may also increase due to shortages in domestic supply.⁷⁶ As mainstream retailers purchase organic ingredients overseas, organics certified under foreign equivalency metrics may not be of the same quality as domestic production; this is especially problematic because the USDA Organic seal currently does not distinguish between the two.⁷⁷

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72. 7 C.F.R. § 205.301(b).

73. § 205.301(c).

74. § 205.305(b).

75. See, e.g., Marvin T. Batte, Neal H. Hooker, Timothy C. Haab & Jeremy Beaverson, *Putting Their Money Where Their Mouths Are: Consumer Willingness to Pay for Multi-Ingredient, Processed Organic Food Products*, 32 FOOD POL'Y 145, 158 (2007) ("[A]s the organic supply chain becomes more fully developed, allowing greater ease of sourcing a broad range of a product's ingredients, the costs of these higher organic content products will likely decrease relative to lesser organic content alternatives.").

76. CATHERINE GREENE, CAROLYN DIMITRI, BIING-HWAN LIN, WILLIAM MCBRIDE, LYDIA OBERHOLTZER & TRAVIS SMITH, U.S. DEP'T OF AGRIC. ECON. RES. SERV., EMERGING ISSUES IN THE U.S. ORGANIC INDUSTRY 7 (2009) (stating that those products in limited supply include nuts, corn, milk, seeds, coffee, and soybeans).

77. U.S. DEP'T OF AGRIC. AGRIC. MKTG. SERV., IDENTIFYING, IMPORTING, AND EXPORTING

First, the entrance of corporate players may cause a shift toward conventional methods for increasing output and profits, while decreasing input costs.⁷⁸ Given that corporations exist to provide profit to their shareholders,⁷⁹ producers may be encouraged to source organics as cheaply as possible to maximize the producer surplus.⁸⁰ Though shifting organic production to resemble conventional farming is not innately harmful, the corporate model may encourage producers to cut corners⁸¹ in areas where smaller organic farmers would not⁸² which may negate some of the benefits associated with organic production.⁸³ For instance, cost-saving measures may include feeding animals processed grain and curtailing access to sunlight and fresh grass.⁸⁴ In one recent example, several consumer groups filed a complaint against Horizon Organic's dairy operations,⁸⁵ arguing that Horizon's misleading practices, which restricted its animals' access to sunlight and open space, should bar Horizon from qualifying as a certified

ORGANIC PRODUCTS 1 (2012) (noting that the USDA Organic seal may be affixed to many imported foods, while the certifying agent might be listed elsewhere on the product).

78. See Michael Pollan, *Mass Natural*, N.Y. TIMES, June 4, 2006, at 615 ("Because of its scale and efficiency and notorious ruthlessness, Wal-Mart will force down the price of organics, and that is a good thing for all the consumers who can't afford to spend more for food than they already do.").

79. *Dodge v. Ford Motor Co.*, 170 N.W. 668, 681 (Mich. 1919) ("[A] corporation . . . is put into operation for the purpose of absorbing profits which ought to be distributed to shareholders.").

80. See Pallavi Gogoi, *Are Wal-Mart's "Organics" Organic?*, BUSINESSWEEK (Jan. 18, 2007), <http://www.businessweek.com/stories/2007-01-18/are-wal-marts-organics-organic-businessweek-business-news-stock-market-and-financial-advice> (explaining the organic label and "the Wal-Mart price" which is a comparatively cheaper one).

81. See Michael Pollan, *Wal-Mart Goes Organic: And Now for the Bad News*, N.Y. TIMES "ON THE TABLE" BLOG (May 15, 2006), <http://pollan.blogs.nytimes.com/2006/05/15/wal-mart-goes-organic-and-now-for-the-bad-news/> (describing a miniscule exercise yard used to satisfy a regulation requiring access to the outdoors).

82. *Id.* For instance, larger producers may cut costs by reducing sunlight exposure and access to open range grass. See generally *In re Aurora Dairy Corp. Organic Milk Mktg. & Sales Practices Litig.*, 621 F.3d 781 (8th Cir. 2010) (providing example of concerns surrounding corporate organic production).

83. See Rob Johnston, *The Great Organic Myths: Why Organic Foods are an Indulgence the World Can't Afford*, INDEP. (May 1, 2008), <http://www.independent.co.uk/environment/green-living/the-great-organic-myths-why-organic-foods-are-an-indulgence-the-world-cant-afford-818585.html> (providing an example of the use of toxic copper solutions instead of biodegradable pesticides).

84. Melanie Warner, *A Milk War Over More Than Price*, N.Y. TIMES, Sept. 16, 2006, at C1 ("[At Aurora's Platteville farm,] 4,000 cows are put on grass only when not being milked or when they are nearing the end of a lactation cycle. That totals about two to three months a year. The rest of the time they stay in dirt-lined outdoor pens where they eat from an ample trough filling with a mixture of hay, silage, corn and soybeans.").

85. Green, *supra* note 10, at 822 ("USDA may be investigating complaints filed by Cornucopia that Dean Foods [which produces Horizon's Organic Milk], operating a large-scale dairy, has kept its 10,000 cows in feedlot-like conditions, a violation of federal requirements for pasture access and other nutritional and ethical management practices of livestock.").

organic producer because its operations too closely resembled conventional high-density production.⁸⁶ Finally, in order to lower transaction costs and facilitate ease of distribution, major retailers will likely also limit their supplier contracts to large-scale food manufacturers.⁸⁷ Increased cost pressures may also mean that smaller organic farmers could struggle to compete with larger organic operations that can produce organics more cheaply.⁸⁸

Correspondingly, due to ongoing shortages in domestic production of organic items such as coffee and soybeans,⁸⁹ more organic products may be imported and certified under a foreign organic equivalency standard, including imports from nations that are known for lax oversight and regulation. At present, there are roughly 40 foreign groups that may accredit USDA certified organic produce, and organic imports are likely to come from China, Chile, Bolivia, Ukraine, and Uruguay.⁹⁰ Since foreign nations have set forth their own standards for certifying organic products, organic equivalency programs are often used where meeting the organic standards of one nation means that a product will also meet domestic USDA standards.⁹¹ Though equivalent in theory, some imported organics may not possess the same purity and quality as domestic production.⁹² For instance, USDA's recent banning of the Organic Crop Improvement Association, a top inspector of Chinese organics,⁹³ demonstrates that the U.S. must remain vigilant in enforcing USDA standards. What is more, due to backlash from customers, retailers such as Whole Foods are moving away from retailing organics originating from China.⁹⁴ Though far from a panacea to concerns surrounding imported organics, promoting domestic

86. Yeoman, *supra* note 8. Large-scale organic production's similarities to conventional methods raises concerns for many consumer advocates, with Michael Pollan stating that "[i]f organic food merely mirrors the industrial food chain, we haven't made any progress at all." *Id.*

87. MARKETLINE INDUSTRY PROFILE: ORGANIC FOOD IN THE UNITED STATES, MARKETLINE 15 (2012).

88. See *Wal-Mart Goes Organic*, *supra* note 81 ("You'll have to decide for yourself whether the advantage of making organic food accessible to more Americans is outweighed by the damage Wal-Mart may do to the practice and meaning of organic food production.").

89. GREENE ET AL., *supra* note 76, at 7.

90. *Id.* at 1.

91. *U.S. Organic Exports Continue to Expand*, FOREIGN AGRIC. SERV., U.S. DEP'T OF AGRIC., <http://www.fas.usda.gov/http/organics/organics010611.asp> (last visited Nov. 10, 2013).

92. *Id.*

93. William Neuman & David Barboza, *U.S. Drops Inspector of Food in China*, N.Y. TIMES, June 13, 2010, at B1.

94. *Id.* Whole Foods' senior global grocery coordinator, Errol Schweizer, stated "[o]ver the years, we've gotten a lot of critical feedback from customers on products that we source from China." *Id.* Nonetheless, independent studies by Whole Foods demonstrated that the organics from China met U.S. standards. *Id.*

agriculture and increasing foreign inspections can help to ease these concerns in the short run.⁹⁵

Finally, the burgeoning corporate interest and market pressures may affect the regulatory mechanisms that safeguard the quality of organic products. Large organic producers may possess the political and economic clout to shape the organic industry in a way that is inconsistent with ensuring the quality of organic production. As corporate organic producers fill seats on the Board,⁹⁶ they may shape NOP regulations to align with corporate interests. This may explain the fact that the shift in Board composition to include more corporate representatives has coincided with a substantial increase in the number of non-organic items approved on the National List for use in organic foods, which has grown to 250 approved non-organic items and is a dramatic increase from the 77 non-organic items approved in 2002.⁹⁷ Fortunately, NOP guidelines had previously planned for some restraints on corporate governance and, as mentioned above, the Board was devised to possess a diverse membership, including farmers, food handlers, environmentalists, and scientists, to help ensure parity and lack of bias.⁹⁸

In sum, the influx of corporate players will likely result in a shift toward mass production of organics, as well as increased foreign imports. As corporations become increasingly interested in organics, several of the NOP's provisions may need to be amended to safeguard the fundamental aims of the organic movement. Nevertheless, if devised properly, the integrity and quality of organic foods can be maintained.

95. See generally CAROLYN DIMITRI & LYDIA OBERHOLTZER, ECON. RES. SERV., U.S. DEP'T OF AGRIC., MARKET-LED VERSUS GOVERNMENT FACILITATED GROWTH: DEVELOPMENT OF THE US AND EU ORGANIC AGRICULTURAL SECTORS (2005).

96. See *Former NOSB Members*, AGRIC. MKTG. SERV., U.S. DEP'T OF AGRIC., <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateG&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOSBFormerMembers&description=NOSB%20Former%20Members&acct=nop> (last updated Feb. 5, 2013) (noting membership from representatives of General Mills and Campbell Soup Company). See also Strom, *supra* note 25 (“[B]oard composition has shifted as larger corporations purchase smaller organic producers.”).

97. Strom, *supra* note 25 (“As corporate membership on the [B]oard has increased, so too, has the number of non-organic materials approved for organic foods on . . . the National List”).

98. *National Organic Program: Current NOSB Members*, AGRIC. MKTG. SERV., U.S. DEP'T OF AGRIC., <http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateM&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOSBCurrentMembers&description=Current%20NOSB%20Members> (last updated Feb. 7, 2013).

V. WHY CORPORATE ORGANICS PROMOTE PUBLIC WELFARE

Because the entrance of corporate players may reduce price premiums and expand access to organics, the advantages of large-scale organic production will likely outweigh any disadvantages, even accounting for the increased safeguards that may need to be implemented.

A. *Corporate Organics Will Help to Reduce the Price of Organics, Enabling Less Affluent Consumers to Purchase Organics More Frequently*

Since corporate organics may be produced in mass quantities and because suppliers will be pushed to reduce production costs, the overall average price of organics may decrease. This price reduction may allow moderate income and price-sensitive purchasers to buy organics more consistently. Some corporate retailers, such as Wal-Mart, are openly committed to decreasing price premiums. Wal-Mart states that it plans to diminish the gap between conventional and organic products to only 10%, down from the average markup of 20 to 30%.⁹⁹ While there are multiple ways this price reduction may be achieved, only several will be detailed. For instance, corporate retailers may develop relationships with organic suppliers or develop in-house private labels that mirror the stores' low cost brands, and pricing schemes and high volume sales of these items will further help to reduce prices.

As mentioned earlier, many low- and moderate-income consumers would be interested in purchasing organic foods if they were affordable. Although many price-conscious consumers recognize the health benefits of organics, the price markup on organics remains a strong deterrent. In a recent study, the vast majority of consumers interviewed agreed that pesticides found in conventional foods were harmful to human health and that organic foods would help to reduce pesticide consumption, yet only 23% of consumers said they consume organic foods frequently.¹⁰⁰ Therefore, the low-cost production of organics implemented by Wal-Mart and other corporate retailers may encourage price-conscious consumers to

99. Warner, *supra* note 3 ("Wal-Mart says it wants to democratize organic food, making products affordable for those who are reluctant to pay premiums of 20 percent to 30 percent.").

100. Gene E. Lester, *Organic Versus Conventionally Grown Produce: Quality Differences, and Guidelines for Comparison Studies*, 41 HORTSCIENCE 296, 297 (2006) ("Both high- and non-consumers of organic foods believe that 1) pesticides are not responsibly dealt with, 2) that risks and dangers to human beings from pesticides are underrated, and 3) that fruits and vegetables produced without pesticides are healthier.").

purchase organic items on a more consistent basis.

Next, corporate retailers' development of in-house organic labels and competitive pricing schemes may help to reduce the overall price of organics and expand access to less affluent consumers who would otherwise purchase conventional products.¹⁰¹ As organic products expand into the mainstream, ensuring low prices will be key to determining their popularity. Given Wal-Mart's proclivity for "rollbacks" and reduced pricing schemes,¹⁰² other retailers may respond by attempting to price their products competitively, thereby pushing down overall market prices.

Because corporate retailers will likely pressure producers to expand output and reduce costs as they seek to stock their shelves, increased market size and volume purchases will also help to drive down prices.¹⁰³ Interest by Wal-Mart and other corporate retailers may also persuade food manufacturers that cater to Wal-Mart to develop and create new organic products, which may then be priced competitively.¹⁰⁴ Coupled with in-house label options, consumers will be able to choose from organic products by familiar brands alongside lower-cost alternatives. Finally, Wal-Mart's actions may further legitimize organics by raising awareness of these products within its stores.

Therefore, perhaps Wal-Mart's largest contribution to the organic movement lies in its tremendous abilities to drive prices down so that more consumers gain the ability to afford these items. The presence of organic items at major retailers may also improve consumers' familiarity with organic food production methods, further promoting awareness of organics.

101. Warner, *supra* note 84 ("They're creating incremental users because they're removing one of the big inhibitors to buying organic, which is price," explained Harvey Hartman, president of the Hartman Group, a market research firm working with Wal-Mart.).

102. See, e.g., *Walmart Reinforces its Commitment to Deliver Low Prices. Every Day. On Everything.*, WAL-MART, INC. (Apr. 11, 2011), <http://news.walmart.com/news-archive/2011/04/11/walmart-reinforces-its-commitment-to-deliver-low-prices-every-day-on-everything> (outlining a variety of Wal-Mart's price-reduction schemes).

103. See Warner, *supra* note 3, at C4 ("[T]he lower prices [of organics] offered to consumers were made possible by Wal-Mart's enormous volume and by having efficient distribution and inventory systems.").

104. See *id.* ("David Mackay, CEO at Kellogg, says it was helpful knowing that a big customer like Wal-Mart was enthusiastic about the product.").

B. Corporate Organics Will Expand Access Geographically to Populations that Previously Lacked a Local Organic Retailer

Since Wal-Mart operates over 4,000 U.S. stores and over 11,000 retail units around the world,¹⁰⁵ the geographic expanse of its consumer base will extend access to organic foods dramatically, especially in lightly-populated regions, such as the rural South, where organics have been largely unavailable.¹⁰⁶ Many of these areas lack other market options if consumers do not want to choose items sold at conventional retailers.¹⁰⁷ For instance, in so-called “food deserts,” where access to organic produce and other items is limited and where Wal-Mart or another large retailer is often the only grocer, corporate retailers’ increased organic offerings may allow consumers to buy organic products for the first time. Finally, a large proportion of rural consumers are also of low or moderate income,¹⁰⁸ and the corresponding price reductions may help to incentivize these consumers to purchase organics.

C. The Entrance of Corporate Producers Will Help to Lower Pesticide Exposure in At-Risk Populations

Since pesticide exposure has been linked to a variety of health conditions, and because organics, even if mass-produced, contain fewer pesticide residues than do conventional items, widespread consumption of organic foods may reduce total pesticide exposure throughout some of the population.

Pesticide consumption has been linked to a number of health concerns

105. *Our Locations*, WAL-MART, INC., <http://corporate.walmart.com/our-story/our-business/locations/> (last updated Nov. 30, 2013) (providing that Wal-Mart currently has 4,170 retail units in operation in the U.S., and 11,137 total retail units throughout the world).

106. See Troy Blanchard & Thomas Lyson, *Food Availability & Food Deserts in the Nonmetropolitan South*, S. RURAL DEV. CTR. 4 (2006) (“[O]nly 12 of the 256 nonmetro South food desert counties contain a fruit and vegetable market.”). See also MICHELE VER PLOEG ET. AL., ECON. RES. SERV., U.S. DEP’T OF AGRIC., ACCESS TO AFFORDABLE AND NUTRITIOUS FOOD: MEASURING AND UNDERSTANDING FOOD DESERTS AND THEIR CONSEQUENCES 7 (2009) (“Populations that live in areas with limited access to affordable and nutritious food may adjust their food shopping behaviors and diets based on the food environment in their area. . . . Differences in the prices offered at different retail outlets could lead consumers to adjust where they shop and what they purchase.”).

107. See *The Food Access Research Atlas*, ECON. RES. SERV., U.S. DEP’T OF AGRIC., <http://www.ers.usda.gov/data-products/food-access-research-atlas.aspx#UXDI7pjR3ww> (last updated Dec. 5, 2013) (providing a guide to locations lacking access to grocery retailers).

108. See *Walmart Economic and Customer Insights Report – Q2 2012*, WAL-MART, INC., <http://news.walmart.com/walmart-facts/walmart-economic-customer-insights-report-q2-2012> (last visited Nov. 9, 2013) (discussing income and other financial considerations of Wal-Mart customers).

including cancer, neurological problems, and asthma, though effects may vary by type of pesticide.¹⁰⁹ For instance, glyphosate-based herbicides have been linked to testicular cancer, DNA damage, and infertility.¹¹⁰ Some pesticides may stay in the body for substantial periods of time, and pesticides that have been banned for years have been detected in blood and breast milk.¹¹¹ Medical researchers recommend that individuals try to reduce their consumption of, and exposure to, pesticides to the lowest amount possible.¹¹² Unfortunately, pesticide exposure has become the norm in today's society, and a recent study by the Center for Disease Control and Prevention found that 96% of individuals tested had evidence of pesticides in their blood and urine.¹¹³ Fortunately, consumers are already cognizant of the health effects of pesticide exposure. A recent study found that 70% of consumers cited pesticide exposure as a reason for choosing organic, and slightly less cited freshness and health benefits as considerations.¹¹⁴

Nonetheless, these concerns are amplified for at-risk populations. The effects of exposure are more potent for young children and farmworkers¹¹⁵ because children metabolize chemicals more rapidly than adults and possess immature immune systems,¹¹⁶ while farmworkers receive direct exposure on the fields. More positively, pesticide exposure may be easily

109. See D. Pimentel, T.W. Culliney & T. Bashore, *Public Health Risks Associated with Pesticides and Natural Toxins in Foods*, RADCLIFFE'S IPM WORLD TEXTBOOK, U. MINN. (Jun. 6, 2006), <http://ipmworld.umn.edu/chapters/pimentel.htm>.

110. See *id.* See also S.H. Swan et al., *Semen Quality in Relation to Biomarkers of Pesticide Exposure*, 111 ENVTL. HEALTH PERSP. 1478, 1484 (2003).

111. See Pimental et al., *supra* note 109.

112. MARG SANBORN ET AL., 2012 SYSTEMATIC REVIEW OF PESTICIDE HEALTH EFFECTS, ONTARIO COLL. FAM. PHYS. 1–5 (2012).

113. FOURTH NATIONAL REPORT ON HUMAN EXPOSURE TO ENVIRONMENTAL CHEMICALS, CTR. FOR DISEASE CONT. & PREVENTION, DEP'T HEALTH AND HUM. SERV. 145 (2009) (providing a guide to human health implications from exposure to a variety of pesticides).

114. Carl K. Winter, *Organic Foods: Scientific Status Summary Synopsis*, FOOD TECH., Oct. 2006, at 44, 46.

115. Pimentel et al., *supra* note 109. Children are more likely to be affected by pesticide exposure due to their small size and because they consume a higher proportion of fruits and vegetables in relation to their body weight. See *id.*

116. See, e.g., PESTICIDES IN THE DIETS OF INFANTS AND CHILDREN, NAT. RES. COUNCIL 3 (1993). See also ORGANIC FOOD PRODUCTION TALKING POINTS, AM. DIETETIC ASSOC. 5 (2007); Chensheng Lu et al., *The Attribution of Urban and Suburban Children's Exposure to Synthetic Pyrethroid Insecticides: A Longitudinal Assessment*, 19 J. EXPOSURE SCI. & ENVTL. EPIDEMIOLOGY 69, 69 (2009) (“[C]hildren were continuously exposed to pyrethroid insecticides through their diets all year long, and this chronic exposure pattern was periodically modified by episodes of relatively high exposures from residential uses.”); Marsha K. Morgan et al., *Exposures of Preschool Children to Chlorpyrifos and its Degradation Product 3,5,6-trichloro-2-pyridinol in their Everyday Environments*, 15 J. EXPOSURE ANALYSIS ENVTL. EPIDEMIOLOGY 297, 297 (2005) (“The primary route of exposure to chlorpyrifos was through dietary intake . . .”).

reduced,¹¹⁷ and researchers at Emory University determined that children may be protected against pesticide exposure by up to 50 to 80% if they consume an organic diet.¹¹⁸

Despite the Environmental Protection Agency's ("EPA") increased regulation of pesticide use,¹¹⁹ many children continue to be exposed to elevated levels of pesticides, possibly retarding and irreversibly harming their development. One pesticide, organophosphorus, is widely used and is particularly toxic, especially to developing children.¹²⁰ Exposure to organophosphates, even at normal levels, has been linked to a greater likelihood of developing attention-deficit/hyperactivity disorder.¹²¹ Similarly, children who have been exposed at birth to atrazine, a related pesticide, exhibit weaker reading and math skills.¹²²

Therefore, because conventional products typically contain more pesticides and other residues than organics, even if these organic items contain some traces of pesticides, expanding access to organics can help to reduce pesticide exposure across some of the population. Since pesticide consumption has been linked to a variety of human health ailments,¹²³

117. Cynthia L. Curl, Richard A. Fenske & Kai Elgethun, *Organophosphorous Pesticide Exposure of Urban and Suburban Preschool Children with Organic and Conventional Diets*, 111 ENVTL. HEALTH PERSP. 377, 377 (2003) ("Consumption of organic produce appears to provide a relatively simple way for parents to reduce their children's exposure to OP pesticides."). See also Chensheng Lu et al., *Biological Monitoring Survey of Organophosphorus Pesticide Exposure Among Pre-school Children in the Seattle Metropolitan Area*, 109 ENVTL. HEALTH PERSP. 299, 301-03 (2001); *Nutritional Considerations*, ORGANIC TRADE ASSOC., <http://www.ota.com/organic/benefits/nutrition.html> (last updated Sept. 26, 2011).

118. See Chensheng Lu et al., *Organic Diets Significantly Lower Children's Dietary Exposure to Organophosphorus Pesticides*, 114 ENVTL. HEALTH PERSP. 260, 262 (2006) ("[O]rganic diets provide a protective mechanism against [organophosphorus] pesticide exposure in young children . . . Such protection is dramatic and immediate."). See also B.P. Baker et al., *Pesticide Residues in Conventional, Integrated Pest Management (IPM)-Grown and Organic Food: Insights from Three U.S. Data Sets*, 19 FOOD ADDITIVES & CONTAMINANTS 427, 427 (2002) ("Comparison of specific residues on specific crops found that residue concentrations in organic samples were consistently lower . . . across all three data sets.").

119. *Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)*, ENVTL. PROT. AGENCY, <http://www.epa.gov/oecaagct/lfra.html#Summary%20of%20the%20Federal%20Insecticide,%20Fungicide,%20and%20Rodenticide%20Act> (last updated June 27, 2012) (outlining changes in federal pesticide regulation). See also FIFRA, 7 U.S.C. §§ 136-136y (2012).

120. See Curl et al., *supra* note 117, at 377 ("[C]onsumption of organic fruits, vegetables, and juice can reduce children's exposure levels from above to below the U.S. Environmental Protection Agency's current guidelines . . .").

121. See Maryse F. Bouchard et al., *Attention-Deficit/Hyperactivity Disorder and Urinary Metabolites of Organophosphate Pesticides*, 125 PEDIATRICS 1270, 1270 (2010).

122. THE FARMING SYSTEMS TRIAL, RODALE INST. 18 (2012), available at <http://66.147.244.123/~rodalein/wp-content/uploads/2012/12/FSTbookletFINAL.pdf>.

123. See Pimentel et al., *supra* note 109.

promoting organics may be the first step in reducing these health issues.¹²⁴

D. Increased Organic Production Will Help to Counteract Nutrient Declines in Fruits and Vegetables

Since the nutrient content of organics has remained steady over time, while nutrient levels in conventional produce have declined, converting to organic production methods may help offset this loss. However, to do so, large-scale organic agriculture must operate so as to avoid similar nutrient declines.

Conventional produce has been declining in vitamin and nutrient levels over the past 50 years, and this loss of minerals has been as high as 40% for some nutrients.¹²⁵ Mineral loss has also been found to be pervasive through a wide array of crops, thereby suggesting that diminishing soil quality plays a large role in this decline.¹²⁶ Fortunately, organic produce has not experienced a similar decline¹²⁷ and organic fruits and vegetables have even been linked to increased vitamin and antioxidant levels as compared to conventional produce.¹²⁸ Though not all research confirms these findings,¹²⁹ a review of 41 studies comparing organics to conventional foods found that the organic crops contained substantially more nutrients than conventional crops, including “27% more vitamin C, 21.1% more iron, 29.3% more magnesium, and 13.6% more phosphorus.”¹³⁰ Similarly, organic peaches, tomatoes, and kiwis have been linked to higher levels of

124. See Warner, *supra* note 84.

125. See Donald R. Davis, Melvin D. Epp & Hugh D. Riordan, *Changes in USDA Food Composition Data for 43 Garden Crops, 1950 to 1999*, 23 J. AM. C. NUTRITION 669, 669 (2004) (“As a group, the 43 foods show apparent, statistically reliable declines . . . for 6 nutrients (protein, Ca, P, Fe, riboflavin and ascorbic acid) . . . Declines in the medians range from 6% for protein to 38% for riboflavin.”). See also *Manic For Organic*, L.A. TIMES, Mar. 10, 2006, at B12.

126. See *id.* at 669.

127. See BRIAN HALWEIL, ORGANIC CTR., STILL NO FREE LUNCH: NUTRIENT LEVELS IN U.S. FOOD SUPPLY ERODED BY PURSUIT OF HIGH YIELDS 24 (2007) (“Since several of the standard practices in agriculture, especially heavy use of chemical fertilizers, have been implicated in reducing the nutrient quality of our crops, organic farming is one approach that can help reverse the trend toward lower nutrient concentrations.”).

128. See *id.*; CHARLES M. BENBROOK, ORGANIC CTR., ELEVATING ANTIOXIDANT LEVELS IN FOODS THROUGH ORGANIC FARMING AND FOOD PROCESSING 2 (2005).

129. Crystal Smith-Spangler et. al., *Are Organic Foods Safer or Healthier than Conventional Alternatives?: A Systematic Review*, 157 ANNALS OF INTERNAL MED. 348, 348 (2012) (finding a lack of evidence that organic foods are “significantly more nutritious than conventional foods”).

130. Virginia Worthington, *Nutritional Quality of Organic Versus Conventional Fruits, Vegetables, and Grains*, 7 J. ALT. & COMPLEMENTARY MED. 161, 168–69 (2001) (“Organic crops contained significantly more vitamin C, iron, magnesium, and phosphorus and significantly less nitrates than conventional crops.”).

Vitamin C as compared to conventional varieties.¹³¹

Therefore, since organic produce may contain higher levels of vitamins and antioxidants, increased organic production can help to counteract nutrient declines found in fruits and vegetables.¹³² As an ancillary effect, corporate producers' interest in organic foods may also persuade small farmers to convert to organic production.

E. Large-scale Organic Production May Encourage Small Farmers to Switch to Organic Production, Even if They are not Selling to Wal-Mart

Though Wal-Mart and other corporate giants may pressure farmers to expand output and cut agricultural costs, thereby dropping the wholesale price of organics, such pressures will not necessarily affect smaller farms that do not typically source to large retailers. On the contrary, corporate organics may stimulate consumer demand, which could entice small farmers to convert to organic production.

Large-scale farming operations generally sell their products to large retailers, while small farmers may choose to sell at farmer's markets and other mid-sized food stores.¹³³ As a result, large-scale organic producers do not directly compete against small farmers, so a price war need not occur. Corporate interest in organics may also increase consumer interest in organic foods, and small, local farmers may be able to reap the benefits of this increased demand as consumers develop a greater awareness of the benefits of organic methods.¹³⁴ There is already evidence that corporate

131. See Marina Carbonaro et al., *Modulation of Antioxidant Compounds in Organic vs Conventional Fruit (peach, *Prunus persica* L., and pear, *Pyrus communis* L.)*, 50 J. AGRIC. & FOOD CHEM. 5458, 5458 (2002) (“[D]ata provide evidence that an improvement in the antioxidant defense system of the plant occurred as a consequence of the organic cultivation practice.”). Similarly, a study of the University of California at Davis found that organic kiwi fruit contained substantially higher levels of Vitamin C and antioxidants than conventional kiwis. Maria L. Amodio et al., *A Comparative Study of Composition and Postharvest Performance of Organically and Conventionally Grown Kiwifruits*, 87 J. SCI. FOOD & AGRIC. 1228, 1235 (2007) (“All the main mineral constituents were more concentrated in organic kiwifruits, which also had higher levels of ascorbic acid and total phenol content, resulting in a higher antioxidant activity.”). Notably, the kiwis compared in the study were grown at the same California farm. See also ORGANIC TRADE ASSOC., *supra* note 117.

132. Worthington, *supra* note 130, at 168–69.

133. See MARKETLINE, *supra* note 87, at 15 (“Strong market growth in the US market serves to ease the degree of rivalry amongst players, as they can generate revenues without encroaching on other players' share of the market.”).

134. See Warner, *supra* note 3, at C4. Harvey Hartman, president of the Hartman Group, stated that “[w]hat Wal-Mart has done is legitimized the market. All these companies who thought organics was a niche market now realize that it has an opportunity to become a big business.”

organics are helping to stimulate demand for organic food. The organic industry is rapidly expanding, and by 2016 is expected to reach a value of \$46.5 million, which represents a 59% increase from 2011 levels.¹³⁵

Therefore, promoting the sale of organics at Wal-Mart and other corporate retailers may motivate individuals to look to their local farmers market and may improve understanding of the value of local, organic foods. Small farmers can take advantage of the heightened consumer demand for organics created by corporate retailers and may then be able to distinguish their food by showing its superior quality and that it is locally grown. In this way, small farmers may benefit from corporate interest in organics.

Consequently, while the market may demand efficiency and cost-cutting of large-scale operations, smaller organic farmers, who sell mainly at farmers markets and local restaurants, and not at corporate retailers, need not be pushed out of the market. Large and small organic farmers serve different demographics, and therefore price pressures for farmers selling to corporate retailers will not necessarily be passed on to smaller organic farms.

VI. RECOMMENDATIONS

Given the benefits of increasing access to organics, the entrance of corporate players into the organic industry will likely be more advantageous than harmful. However, USDA and federal policymakers should consider the following recommendations as the organic industry is shaped in the coming years:

1. Do not rely on market forces to dictate control of organics.

While the organic industry continues to expand, consumer demand and market forces should not be the sole factors driving organic food consumption, especially in light of potential public health ramifications. Instead, increasing the accessibility of organic foods should be viewed as a public health initiative and policymakers should strive to ensure that these products gradually become more affordable for low-income and price-conscious consumers.

Though large retailers play a key role in increasing the affordability of organics, policymakers should integrate organic food accessibility into

135. MARKETLINE, *supra* note 87, at 2.

existing public health initiatives. Due to limitations arising from their organizational structuring, corporations are not well-suited to spearhead public health reform.¹³⁶ Corporations must generate profits for shareholders and are often pressured to rely on short-term factors when making business and marketing decisions.¹³⁷ Therefore, without additional support, corporate retailing of organics is likely to be insufficient to induce dramatic changes in food consumption in some population sectors.

In order to take advantage of emerging market trends, federal policymakers should devise complementary legislation promoting organic food consumption and lowering price premiums. Initiatives to promote organics could be linked to existing federal programs. For instance, as a way to reduce the widespread consumption of processed, conventional foods in low-income populations, new policies could encourage individuals receiving assistance under the Supplemental Nutrition Assistance Program (“SNAP”) and other subsidized food plans to purchase organic foods.¹³⁸ An “allowance” system could be devised where organic purchases are proportionately favored to mitigate the price markup. Additionally, to further promote organic purchases by price-sensitive consumers, policymakers could work to help prevent price volatility for key organic commodities, such as dairy and eggs, so that these products remain affordable for consumers even in times of economic downturn. These, and similar initiatives, can help to ensure that organic foods cease to be a luxury of the affluent.

Second, as large retailers enter the industry, federal policymakers should prevent corporate influences from shifting NOP policies away from the public interest by installing additional restraints upon the Board’s decision-making authority, especially in its approval of synthetic and other substances in organic production.¹³⁹ In so doing, policymakers should establish an absolute cap on the number of non-organic substances that may be permitted on the National List,¹⁴⁰ so that Board members must be

136. BOTTOM LINE OR PUBLIC HEALTH: TACTICS CORPORATIONS USE TO INFLUENCE HEALTH AND HEALTH POLICY, AND WHAT WE CAN DO TO COUNTER THEM 6 (William H. Wiist ed., 2010) (“[T]he primary purpose of the corporation is to increase shareholder value. It has no other obligation to individuals, societies, or the planet.”).

137. See Rosabeth Moss Kanter, *How Great Companies Think Differently*, HARV. BUS. REV., Nov. 2011, at 68 (providing that businesses are limited to “focus[ing] on maximizing short-term profits and delivering returns to shareholders”).

138. *Supplemental Nutrition Assistance Program (SNAP) Eligibility*, FOOD & NUTRITION SERV., U.S. DEP’T OF AGRIC., http://www.fns.usda.gov/snap/applicant_recipients/eligibility.htm (last visited Nov. 9, 2013) (outlining eligibility requirements and benefits under food assistance program).

139. See 7 U.S.C. §§ 6517–78.

140. § 6518 (establishing the creation of the National Organics Standards Board).

judicious and sparing when proposing recommendations for additional non-organic substances for use in organic production.¹⁴¹ To further increase oversight, USDA or U.S. Government Accountability Office (“GAO”) could audit Board decisions to determine whether the actions it recommends are in the best interest of the public and the environment.¹⁴² Thus, creating restrictions upon the Board’s authority will help to safeguard the NOP’s mission and ensure that its policies remain consistent with the original aims of the organic movement.¹⁴³

Finally, in order to memorialize the importance of maintaining the quality of organic foods, a public health component should be formally added to the NOP’s goals.¹⁴⁴ Intermingling public health with organic regulation will help to solidify a major impetus behind the organic movement: promoting human health by maintaining the purity of the environment.¹⁴⁵ As profit potential in the industry increasingly motivates producers, it will be vital to preserve the non-pecuniary facets of organic production. Funding should also be increased for research pertaining to the health and environmental factors of different production methods; this information could be used to encourage the development of new agricultural practices that simultaneously raise profits and promote health. By regulating and investing in these practices, the positive externalities of corporate organics can increase societal well-being, while improving organic production processes.

2. Clarify and refine standards for organic production.

Due to potential cost-cutting measures that large-scale agricultural operations may take, which could compromise organic production, policymakers should take further steps to outline specific, affirmative requirements that producers must complete to meet NOP process-based standards.¹⁴⁶ Additionally, the penalties for noncompliance and violation of

141. § 6517 (detailing the National List).

142. See U.S. DEP’T OF AGRIC., USDA OVERSIGHT OF ORGANIC PRODUCTS 2 (2012) (“The USDA organic regulations do not address food safety or nutrition.”). Most of the present aims of the USDA Organic program are organized around ensuring the quality and consistency of organic production. However, as the health implications of organics are increasingly studied, policymakers should consider incorporating public health as a formal initiative of the organic program in order to combine two closely related aims. See *id.*

143. See *id.*

144. *Id.*

145. *Id.*

146. In order to avoid excessively burdening small organic producers, these affirmative requirements could be limited to mid-sized and large producers.

organic standards should be increased and tied to the producer's sales volume or net revenues, so that high-profit producers are incentivized to strictly adhere to these standards.

First, organic production methods should be clarified and refined, so that large organic operations cannot shortchange NOP standards without clearly violating them. Clarifying organic process-standards will help to ease concerns of the reduced integrity of organic methods. Such initiatives may include incorporating a number of concrete measures such as temporal or square footage metrics, refining animal feed requirements, and specifying standards for animal care, among others. Currently, the NOP sets forth several affirmative standards for organic production, but many of these provisions afford substantial leeway before a clear violation occurs.¹⁴⁷ As corporate players increasingly dominate the organic industry, they may be incentivized to contort these meanings where the provisions are vague. For instance, under 7 C.F.R. § 205.239, conditions are set forth detailing livestock care and call for, among other items, “[a]ccess to the outdoors . . . and direct sunlight suitable to the species,”¹⁴⁸ as well as access to pasture for ruminants.¹⁴⁹ However, these provisions do not specify a temporal duration for which animals must access grass, pasture, or sunlight, nor does the section define how much square footage is needed.¹⁵⁰ Many of these provisions remain lax and currently allow the producer substantial discretion to determine the standard of treatment at his facility.¹⁵¹

Other provisions further illustrate that current NOP standards fail to outline specific organic process requirements, thereby allowing large-scale farmers to model organic operations after conventional methods that may possibly negate some benefits of organic production. For instance, most agricultural process standards set forth under 7 U.S.C. § 6501–8 involve

147. See 7 C.F.R. §§ 205.201–05, 205.237–39 (outlining process requirements for organic agriculture and livestock operations). The standards set forth under these provisions are namely concentrated on ingredients and activities that may or may not be used, or activities that should or should not occur. Nonetheless, many of these provisions are vague and allow substantial leeway for large-scale organic producers to cut corners without violating standards. One avenue for the USDA consider is to instill temporal requirements (though accommodating differences in climate and the variability of weather patterns) and to refine the terms set forth in these provisions. See *generally* Final Rule: National Organic Program (NOP); Access to Pasture (Livestock), 75 Fed. Reg. 7153 (Feb. 17, 2010) (codified at 7 C.F.R. § 205) (providing an example of more specific regulations).

148. § 205.239(a)(1).

149. § 205.239(a)(2).

150. See §§ 205.239(a)(1)–(2).

151. See NATIONAL ORGANIC STANDARDS BOARD (NOSB) LIVESTOCK COMMITTEE: PROPOSED ORGANIC ANIMAL WELFARE GUIDANCE AND STANDARDS, AGRIC. MKTG. SERV., U.S. DEP'T OF AGRIC. 1 (2009) (“The current regulations are vague in regards to performance metrics within the organic livestock production system.”).

avoiding substances and other pollutants, such as prohibiting contamination by conventional pesticides and synthetic chemicals.¹⁵² Similarly, 7 U.S.C. § 6509, which refers to animal care and handling, is characterized by requirements specifying the avoidance of certain practices and the use of chemicals,¹⁵³ yet leaves substantial discretion to producers.¹⁵⁴ As a consequence, large-scale organic food operations may not, in practice, differ from conventional high-density operations, except for the inputs used.¹⁵⁵ Thus, due to concerns that corporate food producers may abuse or shortchange the organic process requirements as presently designed, USDA should look to add more specific, affirmative requirements to NOP regulations, such as creating minimum pasture requirements for animals at meat and dairy operations, and carefully outlining steps for agricultural processes.¹⁵⁶

Second, policymakers should strengthen the penalties imposed for organic agricultural operations found to be in violation of organic process standards, especially for those violations with substantial human health or environmental implications. Such penalties should also be correlated with the operation's revenues or income. Currently, operations in violation of USDA regulations only face a fine of up to \$11,000 for each violation, though suspension of the operation's organic certification may occur in more serious or repeat instances.¹⁵⁷ In spite of these penalties, large-scale organic operators, which often generate millions of dollars in revenue, may not be deterred and could even take action to hide the evidence of a violation altogether. Correspondingly, fines for violations should be tied to the revenues or income that the organic operation receives, as determined by its tax filings and should be a fixed percentage of this figure. Small farmers who are found to be in violation of organic standards will not be

152. See 7 U.S.C. §§ 6501–6508 (2012).

153. See *id.* § 6509. Please note that 7 C.F.R. §§ 205.237–39 (2010) does outline affirmative steps, yet throughout the Code, operators are afforded substantial discretion, and only egregious violations would fall under the provisions as presently written.

154. See 7 U.S.C. §§ 6509(c)–(e).

155. See Pollan, *supra* note 78, at 16–17 (“The industrialization of organic agriculture, which Wal-Mart’s involvement will only deepen, has already given us ‘organic feedlots’ . . . [where animals] never touch a blade of grass.”). See also In re Aurora, *supra* note 6, in which consumers brought forth a class action suit for deceptive marketing, alleging that Aurora falsely represented that its cows had been fed at pasture.

156. Such affirmative requirements can be designed so as to afford the farmer or handler continued discretion while overseeing his operations. To improve enforcement, the responsibility could be conferred upon certifying agents to periodically ensure such affirmative requirements are met.

157. U.S. DEP’T OF AGRIC., *supra* note 142 (“If a farm or business violates the USDA organic regulations, punishments may include financial penalties up to \$11,000 per violation and/or suspension or revocation of an operation’s organic certificate.”).

disproportionately impacted, while large-scale producers will view USDA penalties more credibly. As such, the fines for violating organic process-based regulations will be made consistent with the size of the operation.

3. Develop product-based standards.

Policymakers should add product-based standards to the existing process-based regulations by mandating pesticide residue and contaminant testing for organic items. For instance, random pesticide-residue testing could be required for most or all organic crops, and a small percentage of each yield could be tested prior to sale.¹⁵⁸ Similarly, imported organics could be tested for contaminants at intermediate phases of production, including at the time of arrival into the U.S. for further processing and sale.¹⁵⁹ Finally, initiatives could be developed to limit the financial burden of product testing on certifying agents.

Currently, most NOP requirements are process-based, meaning that the production methods are reviewed, but the quality of the final product is not considered.¹⁶⁰ While process-based review provided sufficient regulation in earlier times when organic production was mostly confined to small farmers who carefully oversaw production, this standard is insufficient when applied to large-scale operations. The organic items stocked at Wal-Mart and other corporate retailers often contain ingredients from several different organic handlers that have been processed for final sale at yet another facility.¹⁶¹ Contamination by pesticides or other banned substances could occur at any stage prior to sale without detection. Alongside other measures, moving toward product-based requirements, meaning that all organic products labeled for sale should be inspected for pesticide residues and contaminants, will also help to buffer concerns surrounding the integrity of organic products certified under foreign-equivalency standards.

USDA is already looking to complement the NOP's process-based

158. This inspection would occur much more regularly than current pesticide testing requirements, which is only required annually. See U.S. DEPT. OF AGRIC., OVERSIGHT OF THE NATIONAL ORGANIC PROGRAM: AUDIT REPORT 01601-03HY (2010) (recommending increased pesticide residue testing).

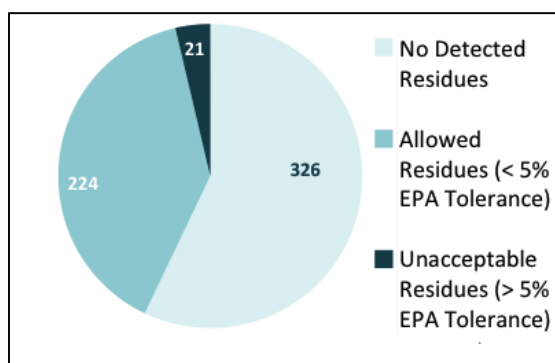
159. See *infra* Part IV.

160. See, e.g., *Policy Memorandum: Genetically Modified Organisms*, AGRIC. MKTG. SERV., U.S. DEP'T OF AGRIC. (Apr. 15, 2011), <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5090396> (noting that "organic certification is process-based" and is not based on final product).

161. See, e.g., *Supply Chain News: Walmart is Changing its Global Sourcing Strategies to Go More Direct – Or Maybe It Isn't*, SUPPLY CHAIN DIGEST (Sept. 24, 2012), <http://www.scdigest.com/ontarget/12-09-24-1.php?cid=6234&ctype=content> (providing that Wal-Mart will likely still use middlemen and will not source directly).

standards¹⁶² with product-based standards to ensure the integrity of organics. In November 2012, USDA set forth a new requirement mandating that 5% of organic foods be tested for pesticide residues annually.¹⁶³ Certifying agents will conduct the residue inspections, which test for the presence of pesticide and contaminants in random samples.¹⁶⁴ Prior to mandating the pesticide residue testing provision, USDA conducted a study to determine whether product-based testing could be an effective and useful way to ensure the integrity of USDA-certified products.¹⁶⁵ Overall, the results of the study were encouraging in confirming the quality of organics currently on the market, as well as the viability of further requiring product-based review of organics at several phases of production.¹⁶⁶ As demonstrated in the Figure 1 below, the study found that the majority of certified organic items in the sample contained no detectable pesticide residues and fewer than 5% contained an unacceptable level of residues.

FIGURE 1:
Overview of Results by Sample for All Commodities 2010–2011¹⁶⁷



Likewise, the USDA study confirmed that a product-based method of

162. 7 U.S.C. § 6504 (2012) (outlining three process-based requirements that must be met).

163. National Organic Program; Periodic Residue Testing, 77 Fed. Reg. 67,239 (Nov. 9, 2012) (codified at 7 C.F.R. pt. 205). *See also* Letter from Miles McEvoy, USDA Deputy Administrator, to National Organic Program Accredited Certifying Agents, Periodic Residue Testing of Organic Products (Feb. 28, 2013), available at <http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5101236> (outlining preliminary standards for periodic residue testing).

164. *See* National Organic Program; Periodic Residue Testing, 77 Fed. Reg. at 67,239.

165. *See* AGRIC. MKTG. SERV., U.S. DEP'T OF AGRIC., 2010–2011 PILOT STUDY: PESTICIDE RESIDUE TESTING OF ORGANIC PRODUCE 1 (2012).

166. *See id.*

167. *Id.*

testing can be a convenient and useful way to measure the purity of organic products.¹⁶⁸ The study determined that product-based testing is “operationally feasible,” and thus, coupled with process-based regulations already in effect,¹⁶⁹ increasing the frequency of periodic residue and contaminant testing may be a way to ensure that the quality of organic products remains high as large corporate players enter the market.¹⁷⁰

Though USDA is just beginning to look into the feasibility of including product-based standards to ensure the quality of organic products, and has only proposed a small sample size to test the new standards, increased pesticide residue testing is integral to safeguarding the quality of organic production.¹⁷¹ As a result, USDA should consider moving to residue testing for most or all organic products marketed for sale, and should require testing of a small percentage of each crop yield for contaminants.¹⁷² Because USDA has already set forth stringent guidelines regarding the percentage of organic ingredients necessary to market an item as either “organic” or “made with organic ingredients,”¹⁷³ confirming the purity of these ingredients¹⁷⁴ is merely another production aspect USDA should oversee. While process-based review of organic production provides numerous benefits, confirming the purity of the final product will help maintain the value and meaning set forth by the USDA Organic label in the future.¹⁷⁵ Product-based testing need not disadvantage certifying agents if

168. *See id.* at 2 (“The pilot project was initiated to measure the presence of pesticide residues in products labeled as organic and displaying the USDA organic seal. Samples were collected from retail market sites throughout the United States.”).

169. *See* U.S. DEP’T OF AGRIC., *supra* note 158, at 16 (“The former NOP director stated that the decision not to require regular residue testing was based on officials’ concerns about the cost of testing, and on their position that the NOP regulations are process-based rather than a zero tolerance standard.”). Earlier concerns about mandating residue testing were based on feasibility and price. However, the 2010 USDA study ascertained that it is operationally feasible to require residue testing, and can be conducted in a manner so as to keep costs down.

170. *See* AGRIC. MKTG. SERV., U.S. DEP’T OF AGRIC., *supra* note 165, at 2.

171. *Id.*

172. *See id.* (providing that product-based testing would be carried out by certifying agents who shall randomly test for the presence of pesticides and other banned substances).

173. *See* 7 C.F.R. §§ 205.301(b)–(c) (providing that an item labeled “organic” must contain at least 95 percent “organically produced raw or processed agricultural products”).

174. *See* 7 U.S.C. § 6511 (2012) (providing that a “certifying agent shall utilize a system of residue testing to test products sold . . . as [organic]” if a suspected violation occurs). *See also* U.S. DEP’T OF AGRIC., *supra* note 158, at 16 (“Without such testing, the potential exists that an operation’s products may contain substances that are prohibited for use in organic products.”). Currently, certifying agents are only required to test for residues when noncompliance is suspected.

175. *See* AGRIC. MKTG. SERV., U.S. DEP’T OF AGRIC., *supra* note 165, at 2 (“Residue testing has a dual role in organic certification. It provides a means for monitoring compliance with the USDA organic regulations and discouraging the mislabeling of agricultural products. A residue testing program also provides State Organic Program and certifying agents with a tool for ensuring compliance.”).

mandated uniformly, and these costs could be incorporated in certification fees.¹⁷⁶ As an ancillary effect, requiring residue testing may give certifying agents greater insight as to whether an organic operation has or has not met NOP process-based standards or if inadvertent contamination has occurred.¹⁷⁷

4. Revise standards for imported organics.

Due to increased reliance on imported organics to fill domestic supply shortages, policymakers should actively work to promote transparency in international organic production. Country of origin labeling should be mandated for imported organics and the U.S. should require that the product list the foreign certifying agent, if applicable. Additionally, the U.S. should increase the frequency, quality, and duration of its inspections of international organic operations by making this a condition to its reciprocity certification agreements. Finally, policymakers should look to international trade organizations to take on a greater role in ensuring the integrity of organics and in enforcing penalties.

Despite heightened interest in organic farming, the U.S. continues to experience domestic shortages of several commodities, including cocoa, tea, coffee, mushrooms, herbs, and seeds.¹⁷⁸ Increased oversight of foreign organics is necessary as imported items are sought to fill gaps in domestic supply. In order to assuage consumer concerns, USDA should look to devising a mandatory country of origin labeling scheme, should increase the number and duration of on-site inspections in foreign nations by making this a condition for import, and should especially consider pesticide residue testing for imported organics. These initiatives will help to ensure the quality of imported products and promote transparency within the industry.

While many consumers remain skeptical of imported organics, especially those produced in China, studies by USDA¹⁷⁹ and Whole

176. See U.S. DEP'T OF AGRIC., *supra* note 158, at 17 (noting that the preamble "to the NOP regulations explains that residue testing is part of the cost of doing business and that certifying agents should make provisions in their certification fees for this"). In order to reduce costs for small farmers and producers, subsidies for residue testing could be added to existing federal benefits. *Id.*

177. See *id.* ("Without the periodic testing[,] . . . the potential exists that prohibited substances could appear in organic products").

178. See CAROLYN DIMITRI & LYDIA OBERHOLTZER, ECON. RES. SERV., U.S. DEP'T OF AGRIC., USING VERTICALLY COORDINATED RELATIONSHIPS TO OVERCOME TIGHT SUPPLY IN THE ORGANIC MARKET 6 (2008).

179. U.S. DEP'T OF AGRIC., 2010 ORGANIC ASSESSMENT OF CHINA 8 (2011).

Foods¹⁸⁰ have failed to find any gross disparities in quality or serious violations of NOP standards. Most organics were found to be free of pesticides and other contaminants.¹⁸¹ The USDA China study determined the only significant violations to NOP regulations included “approval of incomplete Organic System Plans and inspection reports and insufficient label review procedures.”¹⁸² The study further noted that NOP officials provided notice and threat of suspension to the non-complying agents.¹⁸³ Despite favorable findings so far, continuous review and follow up assessments of China’s organic certifying operations will be needed in the future.¹⁸⁴

Though Chinese organics have been found to be generally of high quality, some retailers remain cautious of their use.¹⁸⁵ In most instances, organics imported from China contain single ingredient inputs, which are then shipped to and further processed in the U.S., and thus, contamination could occur without the U.S. production facility’s knowledge.¹⁸⁶ In response to consumer concerns, some retailers have taken affirmative steps to allow consumers to decide whether or not to purchase imported organics. For instance, Whole Foods provides labeling that displays a food’s country of origin on many of its imported foods. As one example, the company’s in-house label, 365 Everyday Value, lists the country of origin on the back of every bag of their fruits and vegetables.¹⁸⁷ Therefore, while retailers increasingly look to imported organics to fill supply shortages, some grocers, such as Whole Foods, are working to increase transparency regarding the origin of their products. Including country of origin labeling on products promotes consumer awareness and enables customers to decide

180. Rachael Gruver, *Dispelling Rumors: Organics From China*, WHOLE FOODS MKT. BLOG (Mar. 15, 2012), <http://www.wholefoodsmarket.com/blog/whole-story/dispelling-rumors-organics-china>.

181. See U.S. DEP’T OF AGRIC., *supra* note 179, at 8 (noting that 9 of the 10 samples tested contained no evidence of pesticide residues).

182. *Id.* at 8–9.

183. *Id.* at 9.

184. See *id.* at 10. See also AGRIC. MKTG. SERV., U.S. DEP’T OF AGRIC., ORGANIC OFFICIALS ASSESS CERTIFIERS OPERATING IN CHINA I (2010).

185. AGRIC. MKTG. SERV., U.S. DEP’T OF AGRIC., *supra* note 184, at 1, 8.

186. *Id.* at 1 (noting that the organic products shipped from China are “primarily organic raw ingredients, including soybeans, herbs, peanuts, tea, ginger, and other fruits and vegetables . . . [which] are shipped dry, frozen, or in liquid bulk form for final processing in the United States”).

187. Neuman & Barboza, *supra* note 93. See also *Whole Foods Market Responds to WJLA*, WHOLE FOODS MKT., <http://www.wholefoodsmarket.com/whole-foods-market-responds-to-wjla> (last visited Nov. 9, 2013).

whether or not to purchase imported organic foods. This trend should not be limited to high-end retailers.¹⁸⁸

Like Whole Foods, USDA should consider developing a standard that requires the labels of imported organics to include a signifier of the location where the ingredients were produced. In one possibility, policymakers should consider expanding the Country of Origin Labeling Law (COOL) to encompass the labeling of imported organics.¹⁸⁹ In the alternative, policymakers could require country of origin labeling for organic imports through amendment to NOP standards pursuant to the Organic Foods Production Act.¹⁹⁰ While an imported organic product would still carry the USDA Organic label, the nations from where the ingredients have been imported, or the reciprocal certifying agency, would also be noted. In sum, initiating a country of origin labeling requirement would simultaneously increase transparency and allow consumers to make educated decisions about their purchases.

Additionally, as discussed in the previous section, a product-based component for organic inspection should be developed and used for reviewing imported organics. Product-based standards, such as testing for pesticide residues, are especially important to ensure the quality and purity of imported organic items¹⁹¹ in instances where U.S. inspectors have been unable to conduct on-site testing.¹⁹² Since imported organic items are often used as inputs in a supply chain that includes further processing in the U.S.,¹⁹³ testing for pesticide residues should occur at the time of import, instead of final sale.

188. *Id.*

189. See 7 C.F.R. §§ 60, 65 (2009). Presently, the COOL, first instigated as part of the Agricultural Marketing Act of 1946 and then amended by both the 2002 and 2008 Farm Bills, does not specifically apply to organic labeling, and organic labeling regulations do not require the producer to demonstrate the location of origin of the product. Instead, the COOL namely applies to meat productions and some nuts. Still, mandating a country of origin labeling requirement for organics is a simple way to distinguish imported organics from domestic ones. *See id.*

190. See 7 U.S.C. § 6501.

191. See William Newman, *U.S. to Ensure Spot Tests of Organic Foods*, N.Y. TIMES, Mar. 20, 2010, at B2, available at <http://www.nytimes.com/2010/03/20/business/20organic.html> (quoting Christine M. Bushway of the Organic Trade Association as stating that “[c]ompliance and enforcement are critical to the seal and the long-term health of the industry”).

192. See U.S. DEP’T OF AGRIC, *supra* note 158, at 28 (noting that the NOP allowed five organic producers to continue to operate under the USDA label despite lack of on-sight review by NOP inspectors, and chose to cancel overseas visits “due to safety concerns for its audit staff”). *See also* 7 C.F.R. § 205.501(a)(11).

193. See 2010 ORGANIC ASSESSMENT OF CHINA, *supra* note 179, at 4 (providing that Chinese producers “primarily produce, process, and export single-ingredient products . . . which are then shipped to the United States and processed or packaged further into multi-ingredient retail products”).

Correspondingly, the U.S. should affirmatively work to devise comprehensive inspections for imported goods that employ both product-based and process-based testing. Though the U.S. has already undertaken active efforts to review organic processes, especially in China,¹⁹⁴ U.S. inspections abroad and domestically remain integral to ensuring the quality of organic production. To encourage foreign producers to carefully oversee the integrity of their production methods, heightened inspection requirements should be made a condition for reciprocity certification agreements. USDA should also increase penalties for violating NOP standards, including additional fines tied to the business's revenues and possible license suspension.¹⁹⁵ Similarly, as the use of organic equivalency standards becomes more widespread, the role of international trade organizations could take on a greater role in overseeing and enforcing these provisions.¹⁹⁶ In particular, inspectors from these nations could monitor foreign organic production when U.S. inspectors are unable to do so.

5. Develop considerations for small farmers and public welfare.

As elevated consumer and corporate interest shapes the organic sector,¹⁹⁷ policymakers should increasingly consider the challenges faced by small- and mid-sized operations. As mainstream retailers enter the industry and pressure large organic producers to reduce costs, high barriers to entry and elevated expenses for organic inputs continue to make the conversion to organic farming unpalatable to many small farmers.¹⁹⁸ Specifically, policymakers should further bolster incentives encouraging existing conventional operations to convert to organic production, and among other options should look to subsidize or reduce the price of organic inputs after conversion; and local farmers' groups should look for new ways to market and distribute these products in light of heightened demand.

194. *See id.*

195. Increased penalties for violating NOP standards could mirror penalties for domestic producers.

196. DOMINIQUE LAUTERBURG, *FOOD LAW: POLICY & ETHICS* 3 (2d ed. 2001).

197. *See* CAROLYN DIMITRI & CATHERINE GREENE, *ECON. RES. SERV., U.S. DEP'T OF AGRIC., RECENT GROWTH PATTERNS IN THE U.S. ORGANIC FOODS MARKET 1* (2002) ("Burgeoning consumer interest in organically grown foods has opened new market opportunities for producers and is leading to a transformation in the organic foods industry.").

198. *See* DATAMONITOR, *INDUSTRY PROFILE: ORGANIC FOOD IN THE UNITED STATES 15* (2011) ("[T]he entrance of large retailers into the market could increase the pressure on smaller suppliers. As there are still many smaller organic farmers who supply the bulk of the market, large retailers are usually at a distinct advantage in this market, as they command far more power.").

First, increased emphasis should be placed on encouraging small, local farmers using conventional methods to convert to organic production. Currently, most small-scale local produce is grown conventionally, yet a recent USDA study demonstrated that organic farming is, in many instances, more profitable and produces higher average yields.¹⁹⁹ Further, some farmers' markets in states such as Missouri, Oregon, and Illinois have increasingly become organic-only, thereby suggesting that linking the local food movement with the organic movement is both feasible and profitable.²⁰⁰ Though current government-backed incentives are encouraging,²⁰¹ policymakers should place additional emphasis on creating initiatives to assist *existing* conventional farmers to convert to organic agriculture. For example, such initiatives may include raising payments during the three-year transition period, increasing assistance and guidance for farmers throughout the entirety of the conversion process, and subsidizing the price of organic inputs thereafter.²⁰²

Second, local handlers, distributors, and farmers groups should look for ways to better integrate and promote the sale of organics that have been produced by small- and mid-sized farming operations so that these products are not relegated solely to farmers' markets. In order to distinguish their items from corporate production, small- and mid-sized farmers should view their local sourcing from smaller facilities as a comparative advantage and distinguish their products in this way.²⁰³ These operations could join

199. *See id.* at 4 ("For example, some Midwestern organic grain and soybean production was found to be more profitable than conventional systems, even without price premiums, due to higher yields in drier areas or periods, lower input costs, or crop mix. Also, a recent study comparing organic and conventional apple production in California's Central Coast showed higher yields as well as higher returns under the organic systems. . . . We are not aware of recently published research that finds farming with organic methods is less profitable than farming with conventional methods.").

200. *See id.* at 3.

201. *See 2008 Farm Act Provisions*, ECON. RES. SERV., U.S. DEP'T OF AGRIC., <http://www.ers.usda.gov/topics/natural-resources-environment/organic-agriculture/2008-farm-act-provisions.aspx#UXcYkZjR3wx> (last updated June 18, 2012). *See also* Food, Conservation, and Energy Act of 2008, 7 U.S.C. § 8701 (2012). The 2008 Farm Bill developed several initiatives to assist farmers looking to convert to organic agriculture, and future Farm Bills will likely continue to promote sustainable and organic farming production methods. Several provisions in the Farm Bill promote organic food production including the Organic Crop Insurance Provision, which eliminates the surcharge that previously had been included for coverage of organic produce, and the Organic Transition Incentives for Beginning Farmers provision, which helps new or disadvantaged farmers to enter into organic farming and certify their produce as organic. The 2008 legislation also makes it easier for farmers to meet the requirements to convert to organic production by providing subsidies to some farmers during the transition period. Technical assistance to farmers seeking to convert to organic farming is also made available. Nonetheless, these initiatives should increasingly emphasize benefits to conventional producers who switch to organic production. *See id.*

202. *See* DIMITRI & GREENE, *supra* note 197, at 14.

203. *See* DATAMONITOR, *supra* note 198, at 18 ("Strong market growth in many markets serves to

together and further develop business relationships with mid-sized and large retailers that place an interest in these products.²⁰⁴ As an example, Whole Foods and Trader Joe's already purchase organics from a number of mid-sized local producers, and using farmers' groups to develop more of these relationships may help to sustain smaller operations.²⁰⁵ Many high-end restaurants have also begun to source locally as a way to advertise their foods as fresh and of exceptionally high quality, thereby evidencing additional market potential for small organic producers.²⁰⁶ Moreover, in order to reduce the costs of transportation, shipping, and other externalities, Wal-Mart and other large retailers have become increasingly likely to source items from local retailers.²⁰⁷ In some instances, sourcing locally may also help to offset the price disadvantages of small-scale production, and thus, operators should continue to look for new outlets to retail their products and take advantage of the rising consumer demand. In sum, diversification within the industry can help to limit direct competition between large-scale and small-scale organic production.²⁰⁸

6. Revise labeling requirements.

In order to promote transparency by large-scale operations, policymakers should mandate that an organic brand's parent company place the parent's name on the label of the organic product so that it is

ease the degree of rivalry amongst players, as they can generate revenues without encroaching on other players' shares of the market.”).

204. There is evidence that these types of relationships are already developing. *See, e.g., What We Do*, E. CAROLINA ORGANICS, <http://www.easterncarolinaorganics.com/about.php> (last visited Oct. 10, 2013) (stating their business “market[s] and distribute[s] . . . organic farm produce to retailers, restaurants and buying clubs”).

205. One farmer's market manager described the divergence of organic and local farming: “People tend to think that everything at the market is organic, and when they find out that everything isn't, they are disappointed and want more. It's easier to make the market grow with more supply [of organic products].” AMY KREMEN, CATHERINE GREENE & JIM HANSON, *ECON. RES. SERV., U.S. DEP'T OF AGRIC., ORGANIC PRODUCE, PRICE PREMIUMS, AND ECO-LABELING IN U.S. FARMERS' MARKETS 7* (2012).

206. *See, e.g., Farm to Table*, THE SAINT STREET INN, <http://saintstreetinn.com/farm-to-table/> (last visited Nov. 27, 2013); *Local Partners*, CORNER KITCHEN, <http://www.thecornerkitchen.com/local-partners.html> (last visited Nov. 27, 2013).

207. *See* Stephanie Clifford, *Wal-Mart to Add More Local Foods*, N.Y. TIMES, October 14, 2010, at B1, available at <http://www.nytimes.com/2010/10/15/business/15walmart.html> (stating that recent initiatives “would give small farmers a chance a Wal-Mart's business”); Suzanne Kapner, *Wal-Mart Puts the Squeeze on Food Costs*, FORTUNE MAG. (May 29, 2008, 4:25 AM), http://money.cnn.com/2008/05/28/magazines/fortune/kapner_walmart.fortune/ (“By sourcing more produce locally – [Walmart] now sells Wisconsin-grown yellow corn in 56 stores in or near Wisconsin – it is able to cut shipping costs.”).

208. *See* DATAMONITOR, *supra* note 198, at 18.

readily visible. Additionally, to reduce confusion of different labeling terms associated with natural and organic items, “natural” products should be formally defined as those items that include at least 50% organic ingredients, yet do not possess enough organic ingredients to use the term “made with organic ingredients.”

First, due to recent mergers of independent organic companies, larger conventional food producers own many familiar organic brands. However, in many instances, an organic product owned by a corporate producer may use only the trademark of the formerly-independent organic company on its packaging and labeling. Though this marketing tactic is a strategic method to appeal to consumers who equate small farming operations with “organic,” the lack of demonstrated association with the parent company may be misleading and fails to adequately represent the scope of the business to consumers. Furthermore, this labeling also harms smaller organic operations that are unaffiliated with a larger parent company and therefore possess fewer resources to market their products. Because these labeling practices are both deceptive to consumers and harm smaller producers, policymakers should look to increase transparency in instances where an organic trademark is affiliated with a conventional parent company.

Correspondingly, due to ubiquity of terms such as “natural,” “organic,” and “made with organic ingredients,” some consumers may be unable to distinguish between these products and large-scale producers have become increasingly likely to take advantage of this confusion.²⁰⁹ Given that the term “natural” remains largely unregulated and that items with fewer than 70% organic content may not use the term “organic” on the product at all,²¹⁰ defining “natural” to encompass those products that include from 50 to 69% organic ingredients will help to fill this void and will help to prevent the unbridled use of the term “natural” as a marketing practice.

Therefore, in light of concerns that corporate players may use labeling schemes to mislead consumers and promote sales of their products at the expense of smaller organic operations, the labeling regulations for natural and organic food products should be revised to promote transparency of an organic brand label’s ownership and to avoid rampant abuse of the term “natural.”

209. See *infra* Part I.

210. 7 C.F.R. § 205.301.

CONCLUSION

The entrance of corporate players into the rapidly expanding organic industry can be a largely favorable trend for consumers if proper safeguards are created. The expansion of organic foods into new markets, coupled with a corresponding reduction in price, will spread organics to areas where the organic movement previously could not reach. Although some concerns may arise that corporate players will be encouraged to drive down production quality, several precautionary mechanisms can be implemented to prevent such abuse of the standards. Therefore, intertwining the organic food movement with corporate juggernauts need not diminish the original aims set forth by the movement. If executed properly, the increased corporate interest may even benefit smaller organic farmers.²¹¹

211. See Josée Johnston, Andrew Biro & Norah MacKendrick, *Lost in the Supermarket: The Corporate-Organic Foodscape and the Struggle for Food Democracy*, 41 *ANTIPODE* 509, 514 (2009) (“At the core of food democracy lies ‘the idea that people can and should be actively participating in shaping the food system, rather than remaining passive spectators . . . [it] is about citizens having the power to determine agro-food policies and practices locally, regionally, nationally and globally.’”).

APPENDIX A
SUMMARY OF RECOMMENDATIONS

- Do not rely on market forces to shift consumer demand for organics. Instead view conversion to organics as a public health initiative.
- Help prevent price fluctuations on key organic commodities.
- Outline specific, affirmative requirements for process-based regulations, thereby closing loopholes. Use temporal or square footage factors; carefully refine animal feed requirements.
- Strengthen penalties for operations found to be in violation of organic process standards, especially those violations with substantial human health or environmental implications; correlate penalties with revenues or income, as determined by tax filings.
- Move toward adding product-based standards, mandating pesticide residue and contaminant testing for final products set for sale (in addition to existing process-based standards).
- Mandate random pesticide-residue testing for most or all organic crops, whether domestic or imported, by testing a small percentage of each yield for residues.
- Test imported organics for pesticides and other contaminants at several phases of production, including at time of import for further processing.
- Promote initiatives to reduce cost of product-testing methods to ease burdens on certifying agents.
- Mandate country of origin labeling for imported organic items and/or list foreign certifying agent on product.
- Increase frequency and duration of organic inspections occurring internationally.
- Look to international trade organizations to take on greater role in enforcing penalties and ensuring integrity of organic products.
- Further increase incentives to encourage existing small and mid-sized conventional operations to convert to organic production.
- Subsidize price of organic inputs for small and mid-sized operations that convert to from conventional to organic production.
- Look to further develop business relationships between small and mid-sized operations and mid-sized corporate retailers, through the use of farmer's groups, and create a market niche for these products.
- Instill formal safeguards to prevent corporate influences from shaping the NOP, especially where public and corporate interests

diverge, and mandate regular audits of Board decisions by USDA or GAO.

- Increase funding for research regarding the health and environmental implications of switching to organic production methods.
- Formally add a public health component to the NOP's aims. Shift toward a food guide that integrates other health aims regarding calories, fat, cholesterol, fruit and vegetable consumption alongside organics.
- Establish an absolute cap on the number of non-organic substances that may be permitted on the National List.
- Mandate corporate organic parent company place the parent brand name on label displaying name of only former-independent organic company.
- Define "natural" products as those that include at least 50% organic ingredients, yet have not met the threshold to use the term "organic."