The Organic Foods Production Act, the Process/Product Distinction, and a Case for More End Product Regulation in the Organic Foods Market

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INTRODUCTION

Congress passed the Organic Foods Production Act (the "OFPA"),[1] and over a decade later, rules implementing the Act were finally promulgated in 2002.[2] In the time between the Act's passage and its implementation, the number of consumers purchasing organic food in the United States, and globally, increased dramatically.[3] Since 1990, the market has grown approximately 20 percent per year.[4] The consumer interest in organic food is particularly striking given the OFPA does not guarantee that food sold as "organic" will be free from toxins or pesticide residues.[5] Indeed, the legislative history of the Act makes clear that Congress did not intend to guarantee that food labeled "organic" would be free from toxins or pesticide residues.[6]

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1. Organic Foods Production Act of 1990 §§ 2102-2123, 7 U.S.C. §§ 6501 - 6522 (2012).

2. 7 C.F.R. § 205 (2000); Michelle T. Friedland, *You Call that Organic – The USDA's Misleading Food Regulations*, 13 N.Y. U. ENVTL. L.J. 379, 384 (2005).

3. William J. Freidman, *The Framework For Global Organic Food Trade Circa 2005: Accomplishments and Challenges*, 60 FOOD & DRUG J. 361, 364-65 (2005).

4. RENEE JOHNSON, CRS REPORT FOR CONGRESS, ORGANIC AGRICULTURE IN THE UNITED STATES: PROGRAM AND POLICY ISSUES 1 (2008), *available at* http://www.fas.org/sgp/crs/misc/RL31595.pdf.

5. *See id.* at 4.

6. *See* FOOD, AGRICULTURE, AND TRADE ACT, S. REP. NO. 101-357, at 292 (1990).

Rather, the OFPA focuses intently on process rather than end product regulation.[7] In this regard, the OFPA has a different focus than much of American business regulation,[8] where the focus appears to be mainly on end product regulation.[9]

This paper asserts that regulation of organic food products should be more product-based for a number of reasons. The most important reason is that organic farming and marketing is unique. Not only does the process by which the food is produced matter to these particular consumers, but consumers also care deeply about the quality of the end product.[10] Organic food buyers recognize that the process by which food is produced has moral and ethical implications.[11] This process impacts farm workers, the environment, and ultimately the quality of the food itself.[12] Given that concerns about farming methods and their relation to environmental health are on the rise, this paper will discuss consumer preferences for process and/or product information.[13]

Additionally, in analyzing this product/process distinction, this paper will discuss the "market for lemons" theory first espoused by Professor and economist, George A. Akerlof, in "'The Market For 'Lemons:' Quality Uncertainty and the Market Mechanism."[14] In "Lemons,"[15] Professor Akerlof analyzed a

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7. *Id.*

8. *See, e.g.*, Toxic Substances Control Act of 1976, U.S.C. §§ 2601-2692 (2000); Federal Food, Drug, and Cosmetic Act, §§ 21 U.S.C. 301-399 (2000); *2012 Resolution on Residue Testing by Organic Certifiers*, NOFA-NY (March 2, 2012), https://www.nofany.org/policy-work/resolutions/2012; S. Rep. No. 101-357, at 292 (1990).

9. *See, e.g*, Douglas A. Kysar, *Preferences for Processes: The Process/Product Distinction and Regulation of Consumer Choice*, 118 HARV. L. REV. 525 (2004); Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115, 176 (2004).

10. See discussion *infra* Part II.B.

11. *Id.*

12. See *id.*

13. *Id.*

14. George A. Akerlof, *The Market For "Lemons:" Quality Uncertainty and the Market Mechanism*, 84 Q. J. OF ECON. 488 (1967) [hereinafter Akerlof, *Market for "Lemons"*].

15. George A. Akerlof, *Writing the "Market For 'Lemons'": A Personal and Interpretive Essay*, NOBELPRIZE.ORG (Nov. 14, 2003), http://www.nobelprize.org

market where buyer and seller relied on asymmetric information. This market ultimately resulted in low quality goods, or "a lemons market."[16] This paper explores the application of the "Market for Lemons" theory to the organic foods market, and considers that while the organic market is one where asymmetric information exists between buyer and seller, the market for organic foods continues to flourish.[17]

Part I of this paper discusses the current regulation of organic food under the OFPA and the implementation of regulations, including recent changes to regulations effective January 2013.[18] Part II discusses consumer perceptions about, and preferences for, organic food, analyzing whether those perceptions align with reality. Part II also explores factors that influence consumers' reasons for buying in the organic food market. In light of these perceptions and preferences, Part III discusses the shortcomings of the OFPA. Finally, Part IV of this paper urges that the market for organic food ought to be more heavily regulated from a product perspective in spite of the fact that the market for organic food is not a "Lemons" market.

This paper ultimately asserts that, despite asymmetric information about ultimate product quality, the reasons for purchasing organic food will remain sound, and the market for organic food will remain fundamentally strong. However, for a multitude of other reasons, including the religious and ethical concerns of consumers relative to health and environment, I propose a regulatory paradigm that would include stricter "organic specific" regulation, as well as thorough end product testing to support the continued expansion of this profitable market.

/nobel_prizes/economic-sciences/laureates /2001/akerlof-article.html [hereinafter Akerlof, *Interpretive Essay*]; *see also George A. Akerlof – Biographical*, NOBELPRIZE.ORG (2001), http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/akerlof-bio.html.

16. Akerlof, *Market for "Lemons," supra* note 14, at 490.

17. *See* discussion *infra* Part IV.B.1.

18. *See* Organic Foods Production Act of 1990 §§ 2102-2123, 7 U.S.C. §§ 6501 - 6522 (2012).

I.
THE HISTORY OF ORGANIC AND THE ORGANIC FOODS PRODUCTION ACT

A. *History*

In 1942, J.J. Rodale, a Pennsylvania farmer and publisher, first used the word "organic" to describe a method of farming in which the farmer strove for improved natural soil condition through the use of natural additions of manure and compost and the avoidance of chemical amendments.[19] "In the late 1940's, organic farming took hold in the United States."[20] It initially began on small family farms that provided food for the farmers themselves and for their immediate families.[21] Over the next half century, organic farming picked up steam, growing in demand and in the number of farmers.[22] Farmers brought these products to market and labeled them "organic," even though the precise meaning behind the term "organic" varied from farmer to farmer.[23]

Oregon was first to respond to this lack of clarity, passing the nation's original state organic certification law in 1973.[24] By the early 1990s, twenty-two state legislatures had passed organic food statutes, each unique to their states.[25] Farmers in states lacking regulation continued to market their products in a

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19. Claire S. Carroll, *What Does Organic Mean Now: What Does Organic Mean Now: Chickens and Wild Fish are Undermining The Organic Foods Production Act of 1990*, 14 San Joaquin Agric. L. Rev. 117, 118-19 (2004).

20. *Id.* It is interesting that Rachel Carson, in her landmark work, *Silent Spring*, notes that synthetic pesticide use began to skyrocket in the mid-1940's in the post World War II era. RACHEL CARSON, SILENT SPRING 7 (1962). This time period also coincides with the beginning of the organic farming movement. Carroll, *supra* note 19, at 119.

21. Carroll, *supra* note 19, at 119.

22. *See* JOHNSON, *supra* note 4, at 1.

23. Kate L. Harrison, *Organic Plus: Regulating Beyond Current Organic Standards*, 25 PACE ENVTL. L. REV. 211, 215 (2008).

24. OR. CORP. STAT. § 632.925 (1973) (current version at § 616.406 (1996)); Kenneth C. Amaditz, *The Organic Foods Production Act of 1990 and Its Impending Regulations: A Big Zero for Organic Food?*, 52 FOOD AND DRUG. J. 537, 539 (1997).

25. Kyle Lathrop, *Pre-empting Apples with Oranges: Federal Regulation of Organic Food Labeling*, 16 J. CORP. L. 885, 886 (1991).

haphazard manner, and existing state regulations lacked consistency.[26]

In response to the lack of consistent regulation for organic farming and marketing, Congress passed the OFPA on November 28, 1990.[27] The OFPA's stated goals were to "(1) [establish] national standards governing the marketing of certain agricultural products as organically produced products; (2) [assure] consumers that organically produced products meet a consistent standard; and (3) [facilitate] interstate commerce in fresh and processed food that is organically produced."[28]

B. *Implementing Regulations*

Ten years after the Act was passed, the United States Department of Agriculture ("USDA") finally passed implementing regulations, which set national standards for organic food production, and attempted to inform consumers about and protect them from false or misleading organic claims.[29] Under the OFPA, these standards, which allow farmers to make organic claims, describe a method of production and certification, rather than provide a guarantee about product quality.[30] There is no clear definition for the term "organic," but rather something "organic" would be better described, although not commonly understood, as "organically produced."[31]

Under the OFPA, Congress defines "organic food" as either crops produced "by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations," or meat, poultry, eggs, and dairy "products from animals that are given no

26. Amaditz, *supra* note 24, at 539; Harrison, *supra* note 23 at 215.

27. Amaditz, *supra* note 24, at 538; Harrison, *supra* note 23 at 216.

28. Harrison, *supra* note 23 at 216; *see also* Organic Foods Production Act of 1990 § 2102, 7 U.S.C. § 6501 (2012).

29. 7 C.F.R. § 205 (2000), *et seq.*

30. *See* Amaditz, *supra* note 24, at 238.

31. Mary V. Gold, *Organic Production/Organic Food: Information Access Tools*, U.S. DEP'T OF AGRIC., (June, 2007), http://www.nal.usda.gov/afsic/pubs/ofp/ofp shtml.

antibiotics or growth hormones."[32] For food to be considered organic, it must be produced without using most man-made pesticides—in particular fertilizers made with synthetic ingredients or "sewage sludge."[33] In addition, the OFPA and its implementing regulations prohibit bioengineering and ionizing radiation in the production of organic food.[34]

Toward these ends, the OFPA authorized the Secretary of the USDA to administer the National Organic Program ("NOP")[35] and to form the National Organic Standards Board ("NOSB").[36] The Act outlines the proper ways to manufacture, handle, label, and test organic products.[37] Additionally, the NOSB makes recommendations about the "development of standards for substances to be used in organic production."[38] In 1995, the NOSB first defined organic as:

> An ecological production management system that promotes and enhances biodiversity, biological cycles, and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain, and enhance ecological harmony. "Organic" is a labeling term that denotes products produced under the authority of the Organic Foods Production Act. The principal guidelines for organic production are to use materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole. Organic agriculture practices cannot ensure that products are completely free of residues; however, methods are used to minimize pollution from air, soil and water. Organic food handlers, processors and

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32. *Id.*

33. *Id.*

34. 7 C.F.R. § 205.600 (2013); Barbara Robinson, *Value Through Verification: USDA National Organic Program*, U.S. DEP'T OF AGRIC., http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3049688&acct=noppub.

35. *See* Organic Foods Production Act of 1990 § 2104, 7 U.S.C. § 6503 (2012). Under the NOP, the Agricultural Marketing Service (the "AMS") oversees national standards for the production and handling of organically produced agricultural products. *See National Organic Program*, U.S. DEP'T OF AGRIC. (Dec. 18, 2013), http://www.ams.usda.gov/AMSv1.0/nop.

36. *See* 7 U.S.C. § 6518.

37. *See* Organic Foods Production Act of 1990 §§ 2102-2123, 7 U.S.C. §§ 6501 - 6522 (2012); Gold, *supra* note 31.

38. Gold, *supra* note 31.

> retailers adhere to standards that maintain the integrity of organic agricultural products. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.[39]

C. *Organic Plans*

Under the OFPA, organic producers of crops or livestock must submit an organic plan to a certifying agent and, where applicable, the state organic program.[40] This plan must provide a detailed description of how an operation will satisfy the production and handling requirements of the regulations promulgated under the OFPA.[41] Upon completion and submission of the proposed plan, both the certifying agent and the producer must agree that the plan fulfills key NOP requirements.[42] If the producer modifies any piece of the plan, he must obtain new approval from the independent certifying agent.[43]

Once the agent and the producer establish a plan, the food goes into production without the use of most synthetic

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39. *Id.*

40. 7 U.S.C. § 6513.

41. U.S. DEP'T OF AGRIC., NATIONAL ORGANIC PROGRAM HANDBOOK: ORGANIC SYSTEM PLANS, ORGANIC SYSTEM PLAN UPDATES, AND NOTIFICATION OF CHANGES 2-4 (Dec. 16, 2013), *available at* www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5105865. The key components of the plan include:

> A description of practices and procedures to be performed and maintained, including the frequency with which they will be performed . . . . Documentation of each substance to be used as a production or handling input. This should include the input's composition and source, as well as the location(s) where and frequency with which it will be used . . . . A description of the monitoring practices and procedures, including the frequency with which they will be performed . . . . A description of the record-keeping system implemented to comply with 7 C.F.R. § 205.103 . . . . A description of the management practices and physical barriers established to prevent commingling of organic operations and products with prohibited substances . . . . Additional information deemed necessary by the certifying agent to evaluate compliance with the regulations.

Id.

42. 7 C.F.R. § 205.201(a) (2013).

43. U.S. DEP'T OF AGRIC., *supra* note 41, at 5.

chemicals.[44] The Act states: "no prohibited substances [are to] be applied to the crop for at least 3 years prior to harvest of the crop."[45] However, the Act does not exclude all synthetic substances; the NOSB makes recommendations about what synthetic substances ought to be allowed on organic farms via a "National List of Allowed and Prohibited Substances" (the "National List").[46] Under the OFPA, the NOSB recommends that certain substances be designated as "banned" and others be designated as "allowed" in the production of organic food.[47] This results in an ever-changing definition of "organic," as the actual product depends largely on what is placed on the National List in any given year.[48]

D. *Production and Handling Standards*

1. Crops

Crops that are certified as organically grown must be grown according to a certification plan and grown without any substances prohibited by the National List for a minimum of three years.[49] Organic crops must have buffer zones between organic and non-organic crops so that drift and inadvertent exposure to harmful substances is minimized.[50] As described above, an organic plan must include a certification from an independent certifying agent that the farmer is growing the crops and operating in accordance with the approved plan. The plan also must include an allowance for annual inspections of

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44. 7 U.S.C. § 6504; 7 C.F.R. § 205.600 (2013).

45. 7 U.S.C. § 6504.

46. 7 C.F.R. § 205.600.

47. *See* Amaditz, *supra* note 24, at 541; 7 U.S.C. §§ 6504-06.

48. *See, e.g.*, Amendment to the National List of Allowed and Prohibited Substances (Livestock), 77 Fed. Reg. 57985 (Sep. 19, 2012) (to be codified at 7 C.F.R. § 205) (in promulgation of final rule amending the National List, enumerates twenty previous amendments to the list); *see infra* notes 125 to 131 and accompanying discussion.

49. 7 U.S.C. § 6504.

50. 7 U.S.C. § 6506. Weaknesses in organic food residue testing provided for under the Organic Foods Production Act are discussed in notes 73, 81, 118-124, and accompanying discussion.

the farm and for limited residue testing by the certifying agent.[51] Finally, the Act requires farmers to have "appropriate physical facilities" to avoid the mixing of organic and non-organic products[52] and rules to prevent the contamination of organic corps when they are transported from farm to market.[53]

2. Livestock

Organic animals must be given 100 percent organic feed, and must not be given hormones or antibiotics, except in cases of illness.[54] Livestock that is to be labeled and sold as "USDA Organic" must also be under organic management from the last third of gestation, with the exception of poultry, which must be under organic management from the first days of life.[55] Dairy cows can be converted to organic herds if they are fed organic feed for a period of twelve months prior to their new organic certification.[56]

Additionally, relatively recent regulations put to rest the controversy concerning the length of the growing season, pasture as a crop, and the required intake of dry matter for ruminates.[57] Regulations passed in 2010 require that ruminates be allowed "daily grazing during the grazing season."[58] "Grazing season" is defined as "the period of time when pasture is available for grazing, due to natural precipitation or irrigation," as impacted by "weather, season or climate."[59] The 2010 regulations also require grazing for a minimum of 120 days per year;[60] that animals receive at least 30 percent of their "dry matter" from pasture during the grazing season; and that pasture be treated

51. 7 U.S.C. § 6506.
52. *Id.*
53. 7 C.F.R. § 205.272 (2013).
54. 7 U.S.C. § 6509.
55. *Id.*; Robinson, *supra* note 34.
56. 7 U.S.C § 6509(e)(2)(B). Organic dairy cows can graze on pasture that is in the third year of its conversion to organic pasture. *Id.*
57. 7 C.F.R. §§ 205.2-205.240 (2013).
58. 7 C.F.R. § 205.239(a)(2).
59. 7 C.F.R. § 205.2.
60. *Id.*

as any other organic crop when used for ruminates.[61]

Organic livestock producers must also provide conditions that allow for exercise, freedom of movement, and reduction of stress appropriate to the species.[62] Producers must establish minimum livestock living conditions that accommodate the "health and natural behavior" of the animals, including access to the outdoors.[63]

This rule, requiring farmers to accommodate the health and natural behavior of animals, was considered by a Massachusetts District Court in the famous "Country Hen" case – *Massachusetts Independent Certification, Inc., v. Johanns*.[64] In Country Hen, a certifier denied organic certification to a chicken farmer who put porches on existing hen houses to provide access to the outdoors, but who made little other change to the living environment when converting to an organic operation.[65] The chicken farmer, Country Hen, appealed the denial of organic certification to the Administrator of the Agricultural Marketing Service under the NOP. The NOP Administrator sustained Country Hen's appeal and allowed an organic certification.[66]

The certifier then sued the Administrator, claiming the certifier had a stake in the outcome of the case, as the outcome would affect the certifier's business and its future certification of organic animals.[67] While the Massachusetts District Court held that the certifier did have standing,[68] the court upheld the Administrator's decision because it was not arbitrary and capricious.[69]

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61. 7 C.F.R. § 205.240. The access to pasture rule had been a source of heated disagreement about what it meant to raise "organic" animals that was finally laid to rest with the 2010 "access to pasture" rule. *Id.*

62. 7 C.F.R. § 205.238 (a)(4).

63. 7 C.F.R. § 205.239(a)(1).

64. Massachusetts Indep. Certification, Inc. v. Johanns, 486 F. Supp.2d 105 (D. Mass. 2007).

65. *Id.* at 112.

66. *Id.* at 113.

67. *Id.* at 115.

68. *Id.*

69. *Id.* at 119-20.

In the wake of Country Hen, many industrial egg producers followed suit by adding porches and making other minor changes to their hen houses to convert them to "organic" operations.[70] Country Hen remains an important ruling that has significantly muddied the waters in the multimillion-dollar organic egg industry. Consumers do not know and cannot ascertain the true quality of the eggs they are buying when they buy "organic."[71] Indeed, regulations concerning the process by which the chickens are raised make no assurances about quality of the end product – quality that might be improved if the hens had meaningful access to the outdoors. In some cases, consumers pay more for eggs from organically fed chickens that are living mainly indoors, contrary to what might be considered the "natural behavior" of chickens.[72]

3. Residue Testing

Typically, all food, both industrially produced and organically produced, cannot contain pesticide residues above certain "tolerance" or maximum residue levels.[73] While Congress intended organic food to contain less pesticide residue and be subject to much lower tolerances than industrially-produced produce – between 1 and 10 percent of standard tolerances[74] – the Act did not specifically require these lower tolerances.[75] Thus, for many years – big growth years for the organic industry – organic food only had to meet the higher standard tolerance

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70. Jill Richardson, *Are Organic Eggs Really Healthier and Tastier and from Happier Chickens than Conventional Eggs?*, ALTERNET (Oct. 5, 2010), http://www.alternet.org/story/148408/are_organic_eggs_really_healthier_and_tastier_and_from_happier_chickens_than_conventional_eggs.

71. *Id.* at 2.

72. *Id.* at 3; *see also* 7 C.F.R. § 205.239(a)(1) (2013).

73. These maximum levels of residue are known as tolerance levels on industrially produced food. Valerie Watnick, *Risk Assessment: Obfuscation of Policy Decision in Pesticide Regulation and the EPA's Dismantling of the Food Quality Protections Act's Safeguards for Children*, 31 Ariz. St. L.J. 419, 1315, 1318 (1999) [hereinafter Watnick, *Risk Assessment*]; 7 C.F.R. § 205.670(e).

74. *See* Organic Foods Production Act of 1990 § 2119(k)(5), 7 U.S.C. § 6518(k)(5) (2012); S. Rep. No. 101-357 (1990), reprinted in 1990 U.S.C.C.A.N. 4656, 4955.

75. *See* 7 U.S.C. § 6518(k)(5).

levels for pesticide residues.[76]

It is only as a result of new regulations, effective January 2013, that organic crop residues must now contain less than 5 percent of the maximum standard levels of contamination and residues allowed regarding industrially produced food.[77] Additionally, as a result of these new regulations,[78] organic certifiers must now, for the first time, test at least five percent[79] of their certified operations to determine if the products contain pesticide residues, and if so, must determine the cause of such residues.[80] If the residues found on the food exceed five percent of the residues allowed on industrially produced food, the food may no longer be labeled as organic.[81] The abovementioned

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76. 7 U.S.C. § 6506 (a)(6); *see supra* notes 4-5 and *infra* notes 94 - 100 and accompanying discussion. Organic food can become contaminated due to "unavoidable drift" or residue from other non-organic operations.

77. Periodic Residue Testing, 77 Fed. Reg. 67239 (Nov. 9, 2012) (to be codified at 7 C.F.R. pt. 205), *available at* http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5101235.

78. On November 8, 2012, the NOP formally required organic certifiers to test products for prohibited substances and pesticide residues. The memorandum follows a 2010-11 pilot study by the NOP that tested 571 samples for pesticide residues. Memorandum from Miles McEvoy, Deputy Administrator, National Organic Program, to the National Organic Program Standards Board (Sept. 27, 2012), http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5100672. Fifty seven percent of those samples tested had no residue at all and 96% complied with existing organic regulations. U.S. DEP'T OF AGRIC., 2010-2011 PILOT STUDY: PESTICIDE RESIDUE TESTING OF ORGANIC PRODUCE (Nov. 2012), http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5101234 [hereinafter *USDA Organic Produce Pilot Study*].

79. The requirement that certifiers now test 5% of the crops they certify has been the subject of criticism in that smaller certifiers will have to pay more for residue testing and will not benefit from economics of scale. It has been estimated by at least one trade organization that the cost of this increased spot testing will account for up to 11% of the budget for small certifiers and that the NOP's estimation that such testing will only account for 1% of a certifier's budget is fallacious with regard to small certifiers. *2012 Resolution on Residue Testing by Organic Certifiers*, NOFA-NY (March 2, 2012), https://www.nofany.org/policy-work/resolutions/2012.

80. If a certifier only certifies 30 operations, it must test at least one of those operations annually. Periodic Residue Testing, *supra* note 77.

81. If a certifier or his testing agent detects residues on food above .01 part per million, he "must:"

1. Assess why residues are present.

2. If residues are due to inadequate buffer zones, prevention of commingling,

changes are positive steps toward guaranteeing the quality of organic produce, but as discussed below, these provisions need to be strengthened to assure product quality.[82]

E. *Labeling Under the OFPA*

True to its color as a marketing statute, the USDA developed strict labeling rules to help consumers understand the organic content of the food they buy. The USDA Organic seal, seen below in both color and in black and white, informs consumers, "a product is at least 95 percent organically produced or processed."[83]

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or contact with prohibited substances, issue a notice of non-compliance if appropriate and require corrective actions to prevent future contamination.

3. If residues are due to intentional or direct application, consider suspending or revoking the operation's organic certification.

4. If suspensions, revocations, or civil penalties are appropriate, coordinate adverse actions with the NOP or State Organic Program.

5. Retain the test results, which will be reviewed as part of your next compliance audit.

Id. at 3.

82. Specific maximum allowed levels of contamination on organic crops ("UREC" levels or Unavoidable Residue Environmental Contaminants) were not established in the Organic Foods Production Act or the initial implementing regulations. 77 No. 218 Fed. Reg. 67239-51 (November 9, 2012) (to be codified in 7 C.F.R. § 205); *s*ee *also* Amaditz, *supra* note 24, at 542.

83. 7 CFR 205.301; *National Organic Program—USDA Organic Seal*, U.S. DEP'T OF AGRIC. (Nov. 29, 2012), http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?&template=TemplateA&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPOrganicSeal&description=The%20Organic%20Seal&acct=nopgeninfo.

On packaged single-ingredient food, either an official seal or the word "organic" may appear on the product.[84] For food containing more than one ingredient, the labeling becomes more complicated. When food contains 95-100 percent organic ingredients, the USDA seal may be used to designate the product USDA organic.[85] When a product contains between 70-94 percent organic materials, it may not use the USDA seal, but a producer can label it as "made with organic (ingredients)."[86] If the product contains less than 70 percent organic ingredients, the NOP forbids the use of either the seal or the term "organic" in the large print labeling. Instead, a producer can state in smaller print "made with organic . . . ."[87]

Even in the face of this "determined" labeling, consumers still face a varied and confusing array of labels on food products, from "natural," to "wild," to "residue free."[88] These latter two terms in particular are not defined in the OFPA[89] and accompanying regulations, and the USDA does not endorse these alternative labeling terms.[90] Similarly, the term "natural" is not fully or clearly defined under the OFPA. While the organic regulations define "natural" with regard to meat or egg products as "minimally processed and containing no artificial ingredients,"[91] they provide no standards if the product does not contain meat or eggs, and they do not make any comment on actual farm practices at the farming operations where these items are

84. 7 C.F.R. § 205.301 (2013).

85. 7 C.F.R. § 205.301; *see* Amaditz, *supra* note 24, at 542.

86. 7 C.F.R. § 205.301(c); Robinson, *supra* note 33.

87. 7 C.F.R. § 205.305.

88. *National Organic Program—What is Organic?*, U.S. DEP'T OF AGRIC. (Nov. 29, 2012), http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateC&navID=NationalOrganicProgram&leftNav=NationalOrganicProgram&page=NOPConsumers&description=Consumers; Amaditz, *supra* note 24, at 537.

89. Organic Foods Production Act of 1990 §§ 2102-2123, 7 U.S.C. §§ 6501-6522 (2012).

90. *National Organic Program—What is Organic?*, *supra* note 88.

91. *See* Amaditz, *supra* note 24. It is important to note that the definition of "natural" signifying that such products must be minimally processed only applies to egg and meat products. There is no definition of "natural" as to other products, including most processed foods. *National Organic Program—What is Organic?*, *supra* note 88.

produced.[92] Similarly, the USDA has not developed any definition concerning products labeled as "pasture-raised" or "humane."[93]

II.

ORGANIC FOOD: AN EXPANDING PROFITABLE CONSUMER MARKET

A. *The Expansion of the Organic Market*

Though organic food typically costs up to 30 percent more than industrially-produced food,[94] consumers still seem willing to buy in the organic market.[95] In 2010, organic food sales in the United States reached $28.6 billion dollars, growing at a rate of over seven percent from sales in the prior year.[96] The current organic market is, however, dominated by large-scale organic producers,[97] who are entering the market at a dizzying pace.[98] Many large supermarket chains are beginning to sell organic food and even market their own organic food lines to meet growing consumer demand for organic products.[99] As of 2009,

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92. *National Organic Program—What is Organic?*, *supra* note 88.

93. *Id.* It is worth noting that food labels that state: "no added hormones" can be confusing and misleading in that federal regulations have never permitted hormones or steroids to be used in poultry, pork or goat.

94. CAROLYN DIMITRI & LYDIA OBERHOLTZER, U.S. Dep't of Agric., MARKETING U.S. ORGANIC FOODS—RECENT TRENDS FROM FARMS TO CONSUMERS 5 (Sept. 2009), http://www.ers.usda.gov/media/185272 /eib58_1_pdf.

95. *Seventy-eight Percent of U.S. Families Say They Purchase Organic Foods*, ORGANIC TRADE ASS'N (Nov. 2, 2011), http://www.organicnewsroom .com/2011 /11/seventyeight_percent_of_us_fam.html (78% of U.S. families report that they are purchasing organic foods).

96. *U.S. Organic Industry Overview*, ORGANIC TRADE ASS'N (2011), http:// www.ota.com/pics/documents/2011OrganicIndustrySurvey.pdf. Organic food sales outpaced industrially produced food sales, which grew little at a rate of just over .6%.

97. Harrison, *supra* note 23, at 212.

98. *See* Stephanie Strom, *Has 'Organic' Been Oversized?* N. Y. TIMES, July 7, 2012, at BU1, *available at* http://www.nytimes.com/2012/07/08/business /organic-food-purists-worry-about-big-companies-influence.html?pagewanted= all&_r=0 (noting that "giant agri-food corporations . . . have gobbled up most of the nation's organic food industry").

99. *See* Pallavi Gogoi, *Wal-Mart's Organic Offensive: Not Everyone is Pleased by the Giant Retailer's Push into Natural Foods, Starting with Some Very Anxious U.S. Farmers*, BUS. WK., March 29, 2006, *available at*

nearly half of all organic purchases were made in conventional supermarkets.[100]

The phenomenon of large-scale production and marketing is both good and bad for the consumer.[101] Large producers are able to take advantage of economies of scale and drive down prices, increasing the accessibility of organic food to more consumers.[102] The downside is that large producers and sellers are pushing small organic farmers out of the market[103] and may not be adhering to the highest quality standards.[104]

On balance, if higher prices for organic food were actually associated with lack of supply,[105] new entrants to the market would be a positive development for the market as they help satisfy market demand, drive down price, and thus ensure that organic food is more readably accessible to a wider variety of consumers.[106]

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http://www.organicconsumers.org/artman/publish/article_204.cfm; *see also U.S. Organic Industry Overview*, *supra* note 96 (noting that in the United States over half of all organic foods were sold in mass-market retailers and over 78% of consumers now purchase some form of organic product).

100. *See Seventy-eight Percent of U.S. Families Say They Purchase Organic Foods*, *supra*, note 95.

101. An expanding market may mean lower prices, but mass-produced organic food may result in a lessening of product quality. *See* A. Christine Green, *The Cost of Low-Price Organics: How Corporate Organics Have Weakened Organic Food Production Standards*, 59 Ala. L. Rev. 799, 828-29 (2008).

102. *Id.* at 806.

103. *Id.* at 828-29.

104. *Id.*

105. *See* DIMITRI & OBERHOLTZER, *supra* note 94 (noting that periodic shortages of organic food are due to the inability of organic farms to supply enough products to meet demand).

106. See Green, *supra* note 101, at 805 (noting Wal-Mart's intention to provide organic foods at no more than a 10% price premium over conventional products). More accessible organic food also has other benefits, including the reduction in the use of pesticides and a decrease in greenhouse gases. For a fuller discussion of these benefits, *see id.* at 828-30; *infra* notes 210-214 and accompanying discussion.

B. Consumer Expectations and Perceptions

A USDA study found the majority of those surveyed believe organic food contains fewer chemicals than industrially-produced food, and that it is better for them and their families.[107] Additionally, 37 percent of respondents believe organic food is better for the environment.[108] A full 30 percent of those surveyed think organic food tasted better than other foods.[109] Other surveys have also shown that consumers believe that organic food is healthier.[110]

A Whole Foods Market study found similar results.[111] Respondents in this study chose organic products because they believed organic products were better for the environment (58 percent), or better for their personal health (54 percent), or the best way to support small and local farmers (57 percent).[112] Others felt organic foods were of high quality (42 percent), or tasted better (32 percent) than non-organic products.[113]

Consumers also have noted ethical and philosophical reasons for buying organic foods.[114] "Organic food is not just about a product; it is a philosophy in which the process of production is as important as the final result."[115] An individual's ethical considerations[116] will vary and may be considerably broad. These

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107. Robinson, *supra* note 34.

108. *Id.*

109. *Id.*

110. *See, e.g*, Don Lotter, *Recent Patterns in the U.S. Organic Market II: Price Premiums and Consumer Demand*, Mar. 14, 2003, at 8 (on file with author).

111. Survey results reported in *Green*, *supra* note 101, at 804-05.

112. *Id.*

113. *Id.*

114. *Id.*; Benjamin N. Gutman, *Ethical Eating: Applying the Kosher Food Regulatory Regime to Organic Food*, 108 YALE L.J. 2351, 2355 (1999) (citing Kyle W. Lathrop, Note, *Pre-empting Apples with Oranges: Federal Regulation of Organic Food Labeling*, 16 J. CORP. L. 885, 890 (1991)).

115. Peter Hoffman, *Going Organic, Clumsily*, N. Y. TIMES, Mar. 24, 1998, at A23, (cited in Gutman, *supra* note 114, at 2355).

116. It is worth noting that one's ethical and other reasons for purchasing organics may ultimately not be best served by making such a choice, as organic products may not be locally available. "Some of the most environmentally conscious consumers . . . desire organic fresh fruit and vegetables year-round, which . . . has led to an immensely unsustainable agricultural practice."

considerations may range from environmental concerns, to animal protection concerns, to humanitarian and human rights concerns for farm workers.[117]

III.

SHORTCOMING OF THE "PROCESS" REGULATION OF ORGANIC FOOD: MISALIGNMENT BETWEEN REGULATIONS AND CONSUMER EXPECTATIONS

A. *Quality Not Guaranteed*

Thus, research indicates that consumers buy in the organic market for varied reasons, some of which are not fully supported by the reality of the products for sale in the organic market. The term organic really "represents a continuum of attitudes and practices, only some of which are actually represented in the organic standards."[118] Yet, consumers largely believe organic food is healthier and free from pesticide residues.[119] The OFPA, however, does not even claim to meet these expectations.[120] Although the OFPA created a uniform federal system to regulate organic production and labeling,[121] it does not make guarantees that food is free from pesticides under federal law or standards.[122] Ultimately, the OFPA is merely a limited labeling and marketing approach. Even with the addition of recent mandatory, but very limited residue testing, the OFPA currently

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Douglas B. Holt, *Constructing Sustainable Consumption: From Ethical Values to the Cultural Transformation of Unsustainable Markets*, 644 ANNALS AM. ACAD. POL. &SOC. SCI. 236, 242-43 (2012).

117. Gutman, *supra* note 114, at 2380 ("For example, a consumer solely interested in the health benefits of organic food might not be interested in whether the food was also produced in accordance with the U.N. Human Rights Charter; other consumers, however, might see this as essential to their decision to purchase organic.")

118. Harrison, *supra* note 23, at 221, (citing MICHAEL POLLAN, THE OMNIVORE'S DILEMMA: A NATURAL HISTORY OF FOUR MEALS 155 (2006)).

119. *See* discussion *supra* notes 107-17 and accompanying text. In the USDA Organic Produce Pilot Study, USDA pilot testing found that only 57% of 571 products tested were residue-free. See *USDA Organic Produce Pilot Study*, *supra* note 78 at 1,6.

120. Robinson, *supra* note 34.

121. *Id.*

122. *See* discussion *infra* Part.III.

fails to meet consumer expectations of organic.[123] In fact, recent results from a USDA Pilot Study of residues on organic products indicate that almost half of all organic foods tested were tainted with pesticide residue.[124]

B. *National List Loophole*

In addition to the fact that the Act is mainly process-based,[125] does not guarantee that organic produce will be residue-free, and does not subject organic products to widespread end product testing, many loopholes also exist in the NOP that further the misalignment of interests between the NOP and consumers. For example, in 2006, Congress introduced a major loophole to the procedure for obtaining a spot on the National List.[126] In that year, Congress allowed the Secretary of the USDA to designate certain substances as allowed in an "emergency" where organic alternatives were not available.[127] This same bill allowed the USDA Secretary to determine when an emergency exists and the standards for determining when an alternative is not available.[128]

Critics asked questions about whether an ingredient would be considered unavailable if the organic version of the ingredient were simply too expensive or difficult to obtain.[129] To this day,

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123. McEvoy, *supra*, note 78.

124. *USDA Organic Produce Pilot Study*, *supra* note 78, at 6. This USDA Organic Produce Pilot Study found that 43 percent of the produce samples tested were tainted with pesticide. The Pilot Study noted that reasons for contamination include "mislabeling, misidentification of the samples during data entry; post-harvest contamination; inadvertent, unavoidable contamination from environmentally persistent pesticides; or drift from pesticides applied to adjacent land."

125. *2012 Resolution on Residue Testing by Organic Certifiers*, *supra*, note 79.

126. Organic Foods Production Act of 1990 § 2118, 7 U.S.C. § 6517(c) (2012); Appropriations Act, Pub. L. No. 109-97, 119 Stat. 2165 (2006) [hereinafter *2006 Farm Bill*].

127. *Id.*

128. *Id.*

129. Bryan Endres, *An Awkward Adolescence in the Organics Industry: Coming to Terms with Big Organics and Other Legal Challenges for the Industry's Next Ten Years*, 12 Drake J. Agric. L. 17, 37-40 (2007).

clarity about when the Secretary is permitted to designate an emergency is lacking. The ability of the Secretary to so designate items on the National List results in an ever-changing definition of organic processes.[130] For food containing ingredients from the National List, this makes the "organic" designation more political than functional in that the meaning of the term depends on who the current USDA Secretary is and to whom his or her loyalty belongs.[131]

C. *Livestock Loopholes in the National Organic Program*

Loopholes also exist in the livestock arena. In the dairy cow market, controversy continues concerning whether cows are getting an appropriate amount of pasture time[132] and whether and how farmers should be permitted to convert non-organic herds into organic herds.[133] Partly in response to the great demand for organic dairy products, the Act allows the conversion of non-organic herds to organic herds where producers feed the herd organic feed for a period of twelve months prior to labeling the milk as organic.[134] Many consumer groups and farmers object to this conversion rule and its application, criticizing it as too lenient and misleading to consumers.[135]

Additionally, controversy has been heated with regard to pasture requirements for organic herds, but may have been laid to rest with the USDA's somewhat recent rule that organic dairy cows get at least 30 percent of their dry matter from pasture and that animals graze for a minimum of 120 days per year.[136] Many

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130. *See id.*

131. *See id.*

132. *See, e.g.*, Will Fantle, *Close Enough for Government Work – OIG Auditors Look at the USDA Organic Program*, CORNUCOPIA INSTITUTE (Aug. 22, 2013), http://www.cornucopia.org/2013/08/close-enough-for-government-work-oig-auditors-look-at-the-usda-organic-program/; Fatema Merchant, *Got Organic Milk? "Pasture"-ize It!: An Analysis Of The USDA's Pasture Regulations For Organic Dairy Animal*, 14 Animal L. 237, 240-41 (2008).

133. Fantle, *supra* note 132; Merchant, *supra* note 132 at 248-49.

134. 7 U.S.C. § 6509.

135. Fantle, *supra* note 132; Merchant, *supra* note 132, at 248-49.

136. *See* National Organic Program; Access to Pasture (Livestock), 75 Fed. Reg. 7154-7155 (Feb. 17, 2010).

farmers in relatively dry or cold states have urged that their land cannot support extensive pasturing of their animals.[137] Proponents of increasingly stringent pasturing requirements argue that if the pasturage can only support small dairy or beef cattle herds – or none at all – then organic farms should not continue to operate in such places.[138]

The standards in the poultry arena have also spurred controversy and allowed for some "maneuvering" so that the quality of the end products is not easily ascertained. The "Country Hen" case is a prime example of a non-organic producer vying to become organic in a short amount of time. In Country Hen, the producer barely changed the farm's living arrangements for the hens in the conversion process, but the producer ostensibly turned his production organic under the NOP with the simple addition of porches to its henhouses.[139]

Despite the Administrator's ruling in favor of the producer in the case,[140] consumer groups have urged that eggs from hens under these circumstances should not be labeled organic and that allowing such labeling and marketing is misleading.[141]

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137. JOHNSON, *supra* note 4, at 5.

138. *See USDA Issues Final Rule on Organic Access to Pasture*, U.S. DEP'T OF AGRIC. (Feb. 12, 2010), http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateU&navID=LatestReleases&page=Newsroom&topNav=&leftNav=&rightNav1=LatestReleases&rightNav2=&resultType=Details&dDocName=STELPRDC5082658&dID=126904&wf=false&description=USDA+Issues+Final+Rule+on+Organic+Access+to+Pasture+ (discussion of access to pasture rule by USDA Agriculture Marketing Service); JOHNSON, *supra* note 4, at 5; William Neuman, *New Pasture Rules Issued for Organic Dairy Producers*, N.Y. TIMES (Feb. 12, 2010), www.nytimes.com/2010/02/13/business/13organic.html?_r=0 (discussing 2010 rule on access to pasture).

139. *See* Massachusetts Indep. Certification, Inc. v. Johanns, 486 F. Supp.2d 105, 115-20 (D. Mass. 2007).

140. *Id.*

141. CORNUCOPIA INSTITUTE, SCRAMBLED EGGS: SEPARATING FACTORY FARM EGG PRODUCTION FROM AUTHENTIC ORGANIC AGRICULTURE (Oct. 2010), *available at* www.cornucopia.org/2010/09/organic-egg-report-and-scorecard/.

IV.
THE ORGANIC MARKET IS NOT A MARKET FOR LEMONS BUT SHOULD BE CLOSELY REGULATED FROM A PROCESS AND A PRODUCT PERSPECTIVE

A. *A Market for Lemons?*

The "Market for Lemons" theory was first espoused by Professor George A. Akerlof in "The Market For 'Lemons:' Quality Uncertainty and the Market Mechanism."[142] In this work, Professor Akerlof discusses a market where buyer and seller rely on asymmetric information that results in low quality goods, or "a lemons market." For example, Professor Akerlof argues that the used car market is a typical "Market for Lemons."[143] Professor Akerlof asserts that, where a consumer cannot ascertain the quality of a good he is buying and only the producer knows the real quality of the product, the producer has no incentive to sell high quality goods.[144] The theory proceeds that this lack of incentive drags down the quality of the entire market, and the market for the goods disappears as consumers lose confidence in the quality of products on the market.[145] In turn, as consumers lose confidence in the quality of the products on the market, the market for the goods finally collapses.[146] Professor Akerlof argued that the used car market is a typical "Market for Lemons."[147]

One might hypothesize that because the OFPA does not guarantee that the final product will be of a certain quality[148] – free of pesticide residues and toxins or livestock raised with allowances for its "natural behavior,"[149] which results in better animal health[150] – consumers cannot readily ascertain the

142. Akerlof, *Market for "Lemons," supra* note 14 at 488.
143. *See id.*
144. *See id.* at 490.
145. *See id.*
146. *See id.*
147. *See id.* at 189.
148. *See* JOHNSON, *supra* note 4, at 1.
149. 7 C.F.R.§ 205.239(a)(1) (2013).
150. *See* FOOD, INC., (Magnolia Pictures 2010) (noting that beef cows that are allowed to graze prior to slaughter will significantly reduce the amount of e coli bacteria in their systems).

quality of the food. Thus, the organic market may be a readily collapsible "market for lemons."[151]

B. *Consumer Preferences for Organic Food Can Be Used to Determine if the Organic Food Market is a Market for Lemons*

While there are some factors that suggest a collapse in the organic food market if quality is not maintained, a strong argument exists that the organic food market will not collapse; even if current regulations do not clearly guarantee that the end product will meet a certain quality standard and are not as rigorous as consumers believe.

1. Factors Suggesting That the Organic Market Will Not Collapse

First, consumers buy in the organic food market for many different reasons, including the opinion that organic food is healthier for people and the environment.[152] And while organic food may not be entirely free of pesticide residues because of drift or unavoidable contamination,[153] recent studies have confirmed that organic food may actually contain less pesticide residue than industrially-produced food.[154] Moreover, the President's 2010 Cancer Panel has endorsed the position that, where possible, consumers should consume organic food to minimize the risk of contracting cancer.[155]

More recently, another trend has added to the power of the organic market: the idea that buying organic makes one more sophisticated and has some cachet.[156] With the consumer on the

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151. *See* Akerlof, *Market for "Lemons," supra* note 14, at 488.

152. *See supra* notes 107 to 117 and accompanying discussion.

153. It might be argued that organic food might also not be free from pesticide residues in certain instances due to intentional application of pesticides.

154. *USDA Organic Produce Pilot Study*, *supra* note 78 at 1, 6.

155. *See generally*, SUZANNE H. REUBEN, THE PRESIDENT'S CANCER PANEL, REDUCING ENVIRONMENTAL CANCER RISK: WHAT WE CAN DO NOW (Apr. 2010), *available at* http://deainfo.nci.nih.gov/advisory/pcp/annualReports/pcp08-09rpt/PCP_Report_ 08-09_508.pdf.

156. *See IQ Squared: Is Organic Food Marketing Hype?*, NEWSWEEK, Apr.

short end of information, this notion further bolsters a market in which asymmetrical information exists.

In addition to these consumer preferences for organic food based on cachet and sometimes-misguided beliefs about the pristine nature of organic food, the market for organic food is markedly different from the used car market analyzed by Professor Akerlof in "Lemons."[157] For example, a peach that is supposed to be organic, but is tainted with pesticides, still "works" in that one can still eat it. A bad used car – one that is akin to a tainted peach – does not "work." This difference in the two markets would likely force used car consumers to be more "wary" than those in the organic food market. Consumers cannot tell if a peach is tainted with pesticide residues, but they can tell if the used car fails to start.

Moreover, even if the food is tainted with pesticide residues, at some level, consumers still believe that the food produced under an organic label is better for the environment and for health – two of the main reasons for purchase.[158] This assumption has some basis in fact, because pesticides were not generally intentionally applied in the production process.[159] Recent testing by the Agricultural Marketing Service in the USDA Pilot Study tends to bear this out,[160] even if the end product is not completely free of pesticide residues or does not meet the consumer's overall quality standards.[161]

18, 2010, www.newsweek.com/iq-squared-organic-food-marketing-hype-70447 ("Organic food is trendy, edgy, and advocated by all the right people. It affords a chance to enjoy a sense of superiority over the coupon-clipping bourgeoisie, to identify with beautiful actresses instead of old farmers in overalls."); *See also* DIMITRI & OBERHOLTZER, *supra* note 94, at 3 (noting that organic consumers are hard to categorize but they consistently found that households with higher levels of education were the most likely to purchase organic products).

157. *See generally* Akerlof, *Market for "Lemons*," *supra* note 14.

158. *See supra* notes 107 to117 and accompanying discussion.

159. The USDA Agricultural Marketing Service has made it clear that where a certifier determines that pesticides have been intentionally applied, the resulting products cannot be labeled as organic. McEvoy, *supra* note 78.

160. *See id.* at 1,6.

161. *See id.* (43% of the samples tested contained some pesticide residues and 4% labeled and sold as organic contained an amount of residue above the allowed standard limit for sale as organic); *supra* notes 73 to 82, 118-41 and accompanying discussion.

Additionally, the "cachet effect" of buying organic does not exist in the used car market.[162] Indeed, buying in the used car market would have considerably less cachet than buying in the new car market, even during this time of "pre-owned" marketing efforts by dealers of second hand cars.[163] In this way, Akerlof's theory must also be discounted as it relates to this somewhat anomalous organic food market, where price is higher even if quality is not guaranteed or readily discernible to the consumer.

These differences between a used car market and the organic food market support an argument that Akerloff's Lemons theory does not apply to the organic food market and that the organic food market will remain strong even as information continues to be asymmetric.[164] Consumers will continue to buy organic products, even if they cannot readily discern product quality and the quality is not as high as consumers expect.

2. Why the Organic Market Might Collapse

On the contrary, other factors suggest that the organic food market will not remain viable and that it is even more likely to collapse than the used car market. In contrast to the used vs. new car market, in the organic food market the price generally goes up, not down, once a consumer decides to buy in the organic food market[165] instead of in the industrially-produced food market.[166] The consumer is therefore hit with a double negative – asymmetrical information about what he or she is buying and

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162. *See supra* note 156, noting that organic customers tend to have a higher level of education than the general public.

163. *See, e.g.*, Arlena Sawyers, *Certified-used sales set a record in 2011*, AUTOMOTIVE NEWS, Jan 23, 2012, at 24.

164. *See, e.g.*, Victor Fleischer, *Brand New Deal: The Branding Effect of Corporate Deal Structures*, 104 Mich. L. Rev. 1581, 1634 (2006) ("Integrity brands are brands that generate a sense of trust where the integrity or social responsibility of the firm is an important product attribute. Examples include . . . organic foods. With these products, the quality of the goods is difficult to measure even after purchase.").

165. DIMITRI & OBERHOLTZER, *supra* note 94, at 5.

166. *See, e.g.*, DEP'T OF AGRIC., OMB BULL. NO. 55, EMERGING ISSUES IN THE U.S. ORGANIC INDUSTRY 18-19 (2009) (noting that organic price premiums for organic milk, fruits and vegetables ranged from 5% to over 100% over competing non-organic products).

the strong possibility that quality does not fully meet his or her expectations[167] – and a higher price. Whereas, in the used car market, a consumer who chooses to buy with asymmetrical information gets a lower priced good for his or her more risky choice, the organic consumer pays more for his or her choice.[168]

In addition, as the limitations of the current organic food regulatory regime[169] become publicized through academic articles,[170] government studies and reports, and the mass media,[171] consumers will be increasingly less willing to pay premium prices for products of dubious quality[172] without stricter quality controls.[173] Even the latest regulations requiring residue testing call for testing of only 5 percent of a certifier's overall program. If the certifier is a small operation, the regulations call for testing of only one of its operations.[174] Further risks to the industry include the growing domination of multinational corporations in organic foods,[175] which may

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167. *See USDA Organic Produce Pilot Study*, *supra* note 78 at 6 (noting that 43% of organic food contains some pesticide residues).

168. The USDA recent marketing report notes that organic foods are 10-30% more expensive than industrially produced foods. DIMITRI & OBERHOLTZER, *supra* note 94 at 5.

169. *See supra* notes 107-124 and accompanying discussion.

170. *See, e.g.*, Chenglin Liu, *Is "USDA Organic" A Seal of Deceit?: The Pitfalls of USDA Certified Organics Produced in the United States, China and Beyond*, 47 Stan. J. Int'l L. 333 (2011); Jessica Hass, *Don't Take the Bait: Why USDA Organic Certification is Wrong for Salmon*, 34 Wm & Mary Envtl. L. & Pol'y REV. 589 (2010); Daren A. Stemwedel, *A Fundamental Flaw in the National Organic Program: The Case for National Regulation of Organic Input Materials*, 19 S.J. Agric. L. Rev. 199 (2009).

171. *See, e.g.*, Tim Devaney, *Pediatricians raise doubts about the benefits of organic foods*, WASH. TIMES, Oct. 23, 2012, www.washingtontimes.com/news/2012/oct/22/pediatricians-raise-doubts-about-the-benefits-of-o/?page=all; Leslie Beck, *Is the love affair with organics over? Study comparing nutrient and contaminant levels in conventional and organic foods finds few significant differences*, GLOBE AND MAIL, Sep. 5, 2012, www.theglobeandmail.com/life/health-and-fitness/health/new-study-finds-scant-evidence-of-health-benefits-from-eating-organic-foods/article4517773; Mike Gibney, *No scientific evidence showing organic is better*, IRISH TIMES, July 5, 2012, at 16.

172. *See USDA Organic Produce Pilot Study*, *supra* note 78 at 1, 6 (noting that 43% of organic food contains some pesticide residues).

173. McEvoy, *supra*, note 78. at 1.

174. *Id.*

175. *See* Strom, *supra* note 98.

conflict with some consumers' desire to support small and local farmers via their purchase of organic products.[176]

V.
CHANGES NEEDED TO MORE ETHICALLY CONFORM THE IMPLEMENTATION OF THE OFPA TO WHAT CONSUMERS BELIEVE AND EXPECT

A. *Should the OFPA and its Implementing Regulations Meet Consumer Expectations?*

The research and analysis in this paper poses the question of whether changes are needed to the OFPA and its implementing regulations to squarely meet consumer expectations. After all, other toxics regulations also do not do what consumers think they do.[177] For example, the Food Quality Protection Act of 1996 (FQPA) – considered landmark legislation for the scope of its efforts to improve the quality of our food, reduce consumers' exposure to pesticide residues, and protect children from pesticide residues in food[178] – certainly does not guarantee that our food is safe.

Rather, the Act regulates the level of pesticide residue allowed on individual foods and thereby proclaims protection.[179] The FQPA, however, certainly does not offer any realistic guarantee of food safety: it makes no accounting for interactions between different toxins and only minimal accounting for the cumulative effect of pesticide residues in foods.[180] Moreover, to date, the FQPA has not been consistently or rigorously enforced to protect children,[181] despite this being one of Congress's primary goals in

176. *See* Holt, *supra* note 116 and accompanying discussion.

177. *See infra* notes 178-95 and accompanying discussion.

178. *See, e.g.*, *Accomplishments under the Food Quality Protection Act (FQPA)*, U.S. ENVTL. PROT. AGENCY (Aug. 2006), www.epa.gov/pesticides /regulating/laws/fqpa/fqpa_accomplishments.htm ("[T]he most comprehensive and historic overhaul of the Nation's pesticide and food safety laws in decades.").

179. Food Quality Protection Act of 1996, Pub. L. No. 104-170, 110 Stat. 1489 (codified as amended in various sections of 7 U.S.C. and 21 U.S.C).

180. *See* 21 U.S.C. § 346a(b)(2)(C)(i)(III) (cumulative exposure only being required to be taken into account for limits with respect to children's exposure to pesticides and toxins).

181. See Watnick, *Risk Assessment*, *supra* note 73, at 1341-57.

passing the legislation.[182]

Similarly, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) does not guarantee that pesticide use is safe.[183] Rather, FIFRA is a "labeling statute" designed to provide information appropriate to the product.[184] The EPA has stated, "no pesticide can be considered safe,"[185] and all pesticides are "associated with some risk of harm to human health or the environment."[186]

Perhaps even more emblematic of our lack of strict toxics regulation, the Toxic Substances Control Act (TSCA), arguably passed and intended to regulate highly toxic substances, does not do what a consumer might believe.[187] While one would think the Act would empower the EPA to regulate toxic substances on a regular basis, it has not been used frequently for this purpose.[188] Rather, Professor Joanne Scott has said that the TSCA suffers from a "data gap, safety gap and technology gap."[189] Describing

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182. *Id.* at 1316.

183. *See* 7 U.S.C. §§ 136(a)-136(y) (2012).

184. *Id.*

185. U.S. GENERAL ACCOUNTING OFFICE, NONAGRICULTURAL PESTICIDES RISKS AND REGULATIONS 4 (GAO/RCED-86-97, 1986).

186. *See* ROBERT ABRAMS, ATTORNEY GENERAL, ENVTL. PROT. BUREAU, N.Y. STATE DEP'T OF L., LAWN CARE PESTICIDES: A GUIDE FOR ACTION 4; *see also* Valerie Watnick, *Who's Minding The Schools: Toward Least Toxic Methods of Pest Control In Our Nation's Schools*, 8 FORDHAM ENVTL. L. J. 73-102, 83 (1996).

187. *See* Kate E. Bloch, *Neuroscience from Womb to Death: Creating a Clearinghouse to Evaluate Environmental Risks to Fetal Development*, 63 Hastings L.J. 1571, 1584 (2012) ("[Under the TSCA] the U.S. EPA has been able, since 1976, to . . . partially regulate five existing chemicals (or chemical classes): polychlorinated biphenyls (PCBs), chlorofluorocarbons, dioxins, asbestos, and hexavalent chromium. Of these, an amendment by Congress to TSCA required regulation of PCBs, and the . . . asbestos regulation, promulgated after the agency spent 10 years building its case, was overturned [in court]")(quoting Michael P. Wilson & Megan R. Schwarzman, *Toward a New U.S. Chemicals Policy: Rebuilding the Foundation to Advance New Science, Green Chemistry, and Environmental Health*, 117 ENVTL. HEALTH PERSP. 1202, 1205 (2009)).

188. *Id.*

189. Joanne Scott, *From Brussels with Love: The Transatlantic Travels of European Law and the Chemistry of Regulatory Attraction*, 57 AM. J. COMP. L. 897, 901-05 (Fall 2009).

these gaps, Professor Scott[190] urges that the data gap exists in that new chemicals are only subject to "pre-market notification" but no specific safety testing.[191] For chemicals on the market prior to enactment of the TSCA, the EPA must justify asking for new data.[192] The EPA must do this by showing that the chemical in question may present an unreasonable risk to human health or the environment; that the chemical is produced or imported in substantial quantities; or that existing data is somehow insufficient.[193]

As a result of this "data gap," the EPA has requested new data on only 200 existing chemicals since the late 1970s.[194] Yet, every year new chemicals are introduced. As of 2004, 87,000 chemicals were on the list of those possibly causing severe to moderate health risks in humans and most had yet to undergo significant testing for potentially harmful properties.[195]

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190. In addition to the data gap under the TSCA, Professor Scott has described a safety gap under the TSCA. Professor Scott has posited that there exists a high evidentiary burden that the EPA must satisfy before it can act to restrict or ban a chemical and that the EPA must provide "substantial evidence" that the chemical presents or will present an unreasonable risk to health or the environment, that the benefits of regulation outweigh the costs, and that it has chosen the least burdensome way to eliminate the unreasonable risk before the EPA will act to restrict or ban the chemical. Indeed, according to Scott, the EPA has only acted to restrict five chemicals since Congress enacted the TSCA (contrasted with 87,000 chemicals on the existing list to be tested under FQPA for possible endocrine disrupting properties). And similarly, Professor Scott has described a "technology gap" that results in differential treatment of new and existing chemicals where existing chemicals are "grandfathered in" and there is an incentive for the continued use of existing substances. This technology gap, it is urged, suppresses industry investment in green chemistry and safer chemicals. Thus, the Toxics Substances Control Act has been rendered virtually meaningless in the protection of humans from toxic substances, despite the existence of what is seemingly powerful federal law. *Id.* at 903-905.

191. *Id.* at 903.

192. 15 U.S.C. § 2603(a) (2006).

193. *Id.*

194. David Markell, *New Directions in Environmental Law: An Overview of TSCA, its History and Key Underlying Assumptions, and its Place in Environmental Regulation*, 32 Wash. U. J. L. & Pol'y 333, 355 (2010).

195. Don Mayer, *The Precautionary Principle and International Efforts to Ban DDT*, 9. S.C. Envtl. L.J. 135, 147 (2002); Valerie J. Watnick, *Our Toxics Regulatory System and Why Risk Assessment Does Not Work: Endocrine Disrupting Chemicals as a Case in Point*, Utah L. Rev. 1305, 1310 (2004).

B. *A Normative Goal: Meeting Consumer Expectations Under the OFPA*

Despite this failure of the regulatory regimes designed to keep us safe from toxins, there remains an argument that, even when other federal statutes do not meet consumer expectations, we ought to at least try to meet the promise of the OFPA. Foremost, from a single-mindedly practical perspective, the organic market is a booming business,[196] and it ought to be protected from consumer backlash. Consumers should have confidence in the quality of the market so that they will continue to buy into the market and it will continue to prosper.

Additionally, there are ethical reasons why the organic foods industry ought to meet consumer expectations.[197] Some commentators have suggested that, because consumers may have religious concerns in choosing organic food, we have an ethical obligation to make sure that the ultimate quality of food labeled organic meets these religious expectations.[198] For example, there are consumers who are forbidden to eat irradiated food or food treated with animal by-products – both prohibited under the OFPA and currently outlawed.[199] However, in the absence of mandatory, uniform, and regular testing of purported organic foods, there can be no guarantee or confidence that such treated foods will not be inappropriately marketed as organic.[200]

Similarly, certain religions, such as Buddhism, prohibit use of genetically modified foods crops,[201] and some Christian and Jewish tenets also prohibit ingesting these types of products.[202] The current system, however, even with changes going into effect this year, does not provide for any significant monitoring of

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196. *See supra* notes 3 to 4, 94-96 and accompanying discussion.

197. *See supra* notes 114 to 117 and accompanying discussion.

198. *See, e.g.*, Kammi L. Rencher, *Food Choice and Fundamental Rights: A Piece of Cake or Pie in the Sky?*, 12 Nev. L.J. 418, 431-434 (2012).

199. 7 C.F.R. §§ 205.105(f), 205.237(b)(5).

200. *See* Friedland, *supra* note 2, at 391-98.

201. Green, *supra* note 101, at 805. GMOs are prohibited under the OFPA. 7 C.F.R. §§ 205.105(e), 205.2.

202. *See* Rencher, *supra* note 198 at 434 ("[S]ome Orthodox Jews believe that foods made with GMOs are not kosher").

organic crops for genetic modification, antibiotics, medications, or hormones.[203] There are still no clear rules about what to do if such transgressions of the OFPA are found.[204] Strengthening existing process rules and adding stricter end product regulation and mandatory testing for GMOs, antibiotics, and hormones will make it more likely – but not guarantee – that consumers are getting what they think they are getting when they buy organic.[205] Additionally, shoring up the organic food market regulations so that organic products meet consumer expectations will make the market stronger. It will likely result in a greater number of market entrants as producers feel more certainty about the future of the market and what is expected of them,[206] which may ultimately drive down price,[207] help meet consumer expectations,[208] and potentially improve overall human health.[209]

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203. *See* MILES MCEVOY, USDA AGRIC. MARKETING SERVICE, CERTIFIED AGENT TRAINING TOPIC: PERIODIC RESIDUE TESTING (Jan. 13, 2013), *available at* http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5102502.

204. *Id.* at 19. AMS guidance for certifiers specifically says that no tolerances exist for GMOs and that if the investigation determines that the residue levels (an awkward description of GMO presence) are as a result of excluded methods, the certifier should take action to suspend or revoke certification. If the residues are determined to be as a result of inadequate measures present to avoid contact with excluded methods, then the certifier is advised to issue an NONC and take corrective action to mitigate contamination.

205. *See* Luanne Lohr, *Implications of Organic Certification for Market Structure and Trade*, 80 Am. J. of Agric. Econ. 11253 (1998). Recent requirements for residue testing call for decertification if a product is found to have had prohibited ingredients intentionally applied. *See also* MCEVOY, *supra* note 203, at 10.

206. *See* Kimberly Kindy & Lyndsey Layton, *Purity of Federal 'Organic' Label Is Questioned*, WASH. POST, July 3, 2009, http://articles.washingtonpost.com/2009-07-03/news/36836942_1_organic-label-organic-products-usda-organic (noting that perceived weaknesses in organic food regulations may be weakening the industry).

207. *See* Andrew Martin & Kim Severson, Sticker Shock in the Organic Aisles, N.Y. TIMES, April 18, 2008, http://www.nytimes.com/2008/04/18/business/18organic.html?pagewanted=all&_r=0 (stating that rising organic foods prices relate to increasing production falling short of increased consumer demand).

208. *See* notes 196-212 and accompanying discussion.

209. *See* Nicholas D. Kristof, Op-Ed. *New Alarm Bells About Chemicals and Cancer*, N.Y. TIMES, May 6, 2010, at A33 (noting that the President's Cancer Panel in 2010 indicated that a "lackadaisical approach to regulation may have far-reaching consequences for our health").

Finally, improving and sustaining the organic food market may reduce our output of greenhouse gases, reduce the use of toxins, and improve the overall environment.[210] Indeed, there is evidence that organic farming methods result in a reduction in omissions of nitrous oxide – a greenhouse gas formed when nitrogen fertilizers are used.[211] These fertilizers are not permitted in organic farming.[212]

In turn, evidence also exists that organic farming reduces nitrogen flow to the water and soil, making it more environmentally sound than industrial farming methods.[213] Additionally, in a time of climate change, and its anticipated negative impact on rainfall and soil moisture in land around the globe, experts believe that organic farming will be a more productive method of growing the world's food.[214]

C. *Proposed Changes*

1. Increase period for transition farming for crops from three years to ten years.

Many pesticides are so persistent in the environment that three years is not sufficient to clear organic farmland for use.[215]

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210. Annise Maguire, *Shifting the Paradigm: Broadening our Understanding of Agriculture and its Impact on Climate Change*, 33 Environs Envtl. L. & Pol'y J. 275, 308-310 (2010).

211. Carmen G. Gonzalez, *Climate Change, Food Security, and Agrobiodiversity: Toward a Just, Resilient, and Sustainable Food System*, 22 Fordham Envtl. Law Rev. 493, 512-513 (2011)

212. Organic Foods Production Act of 1990 § 2109(b), 7 U.S.C. § 6508(b) (2012).

213. Peter Smith, *Greenhouse Gas Mitigation in Agriculture*, PHIL. TRANS. R. SOC. B 326 (2008), *available at* http://rstb.royalsocietypublishing.org /content/363/1492/789.abstract; Carmen G. Gonzalez, *Climate Change, Food Security, and Agrobiodiversity: Toward a Just, Resilient, and Sustainable Food System*, 22 Fordham Envtl. Law Rev. 493, 513 (2011); Andrew J. Nicholas, *As the Organic Food Industry Gets its House in Order, the Time has Come for National Standards for Genetically Modified Foods*, 15 Loy. Consumer L. Rev. 277, 278-79 (2003).

214. Gonzalez, *supra* note 213, at 513; Nicholas, *supra* note 213, at 278-29.

215. *See*, *Persistent Bioaccumulative and Toxic (PBT) Chemical Program—Aldrin/Dieldrin*, U.S. ENVTL. PROT. AGENCY (Apr. 18, 2011), http://www.epa.gov/pbt/pubs/aldrin.htm (stating that although nearly all "uses of dieldrin were banned in the United States in 1985 . . . [d]ieldrin is still found

For example, all pesticide uses of dieldrin and chlordane were cancelled in the 1980s,[216] and these chemicals were major subjects of the Stockholm Convention on Persistent Organic Pollutants in 2001.[217] Yet, even after decades of very limited use, these pesticides are still commonly found in soil.[218] The transition period from non-organic to organic farming should be increased from three years[219] to at least ten years to minimize the risk of pesticides and other chemicals contaminating new organic farms. Furthermore, non-toxic soil amendments should be used to further reduce the risk that organic crops take up lingering poisons from the soil.[220]

2. Change existing regulations to require that dairy cows can only produce organic milk when organically raised from the last third of gestation.

Currently, federal rules allow for transitioning of dairy herds to organic even when originally raised as non-organic herds.[221] These cows need only receive organic feed for a period of twelve

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in our environment from past uses"); DIVISION OF TOXICOLOGY TOXFAQS, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, U.S. DEP'T OF HEALTH AND HUMAN SERVS., ALDRIN AND DIELDRIN, CAS # 309-00-2 AND 60-57-1 1 (Sept. 2002), *available at* http://www.atsdr.cdc.gov /tfacts1.pdf (both aldrin and dieldrin "bind tightly to soil and slowly evaporate to the air").

216. Notice of Cancellation and Amendment of Existing Stocks Determination, 53 Fed. Reg. 11,798 (Apr. 8, 1988) (prohibition on sale or distribution of chlordane); Revocation of Aldrin and Dieldrin Tolerances, 51 Fed. Reg. 46,662 (Dec. 28, 1986) (codified by removal of 40 C.F.R. §§ 180.35, 108.37) (revoking prior dieldrin tolerance limits in light of cancellation of authorized uses of dieldrin).

217. Julie B. Truelsen, *Developments in Toxics in 2004: The Ratification of the Stockholm Convention and the Rotterdam Convention*, 2004 Colo. J. Int'l Envtl. L. & Pol'y 217, 221 (2004). The United States signed, but did not ratify, the Stockholm Convention. *Id.* at 223.

218. *See, e.g.*, Dennis Waslenchuk, Op-Ed., *Ground Wars*, N.Y. TIMES, Sept. 23, 2007, http://www.nytimes.com/2007/09/23/opinion/nyregionopinions/23CT waslenchuk.html (noting that both chemicals are prevalent in local topsoil).

219. Organic Foods Production Act of 1990 § 2105(2), 7 U.S.C. § 6504(2) (2012).

220. *See* I. Helber, T.D. Bucheli, *Activated Carbon Amendment to Remediate Contaminated Sediments and Soils: A Review*, 12 GLOBAL NEST JOURNAL 3, 305, (2010), *available at* www.gnest.org/journal/Vol12_no3/305-317_723_Bucheli _12-3.pdf (visited June 18, 2013).

221. 7 U.S.C. § 6509(e)(2).

months prior to the time their milk is marketed as organic.[222] This practice is deceptive and misleading as animals store persistent toxic substances in their fat cells.[223] Twelve months would not be nearly enough time for a dairy cow to rid itself of the toxins it had absorbed from non-organic feed prior to the point of conversion.[224] Milk produced from cows that have been transitioned to organic feed and production would thus be more accurately labeled "transition milk."[225] This type of labeling plan would accurately inform consumers about what they are buying and, at the same time, encourage market entry for new producers of organic milk.

3. Encourage new entrants to the market, but clearly label their products as "transition" products.

Current law requires that products from a previously non-organic farm may not qualify as "organic" before a three-year transition period without the use of pesticides or synthetic fertilizers.[226] The transition period should be extended to ten years or longer[227] to allow long-lasting chemicals a chance to dissipate[228] before allowing organic products to be sold. To aid the producer in this longer waiting period, the NOP should allow and encourage the marketing of "transition" products with their own transition-specific USDA label. These types of products would be those produced during the changeover period, but produced in accord with an organic plan. This additional labeling regime would offset the hardships of a lengthened transition period and encourage more producers to shift to organic methods.

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222. *Id.*

223. CARSON, *supra* note 20 at 21-27, 178-81.

224. *See id.* at 178-180, 188-91 (discussing the piling up of toxic substances in animal and human bodies).

225. *See infra* note 226 and accompanying discussion.

226. 7. U.S.C. § 6504(2).

227. *See* discussion *supra* Part V.C.1.

228. *See* CARSON, *supra* note 20 at 21-27, 178-81, 189-91 (discussing cumulative storage of chlorinated hydrocarbons).

4. Give small, conscientious, local farmers a boost and a new label

Currently, the USDA green and black organic labels are used interchangeably.[229] A higher level "Green Label" could be reserved for those farmers and producers who are doing more to improve the quality of their end products – including better care of their livestock, longer pasture periods, higher quality feed, larger buffer zones between industrially produced and organic crops, and extreme care to avoid cross contamination or mislabeling between organic and non-organic crops.[230] To encourage these quality practices and products, give farmers and producers who do more than meet minimum standards a new label by reserving the federal green "organic" label for these farmers and allow use of the black label for all other organic food. In general, this higher-level green label could additionally be reserved for those whose organic farms have been operating organically for a certain sustained period.

5. Create a "Local" label.

Furthermore, to meet consumer demand and expectation,[231] the USDA could create and use a "local" label that designates organic produce produced within 150 miles of its intended point of sale. This way, "local" will have a consistent meaning upon which consumers may rely.

6. Require certifiers to test a larger percentage of crops and to test for a broader spectrum of pesticides, including both those banned and those currently in use, as well as for antibiotics and GMOs.

While testing organic food for antibiotics, GMO's and testing a larger percentage of crops for a broader array of pesticide residues may be costly, this step is the most effective way to shore up consumer confidence and ensure the long-term viability

229. *See supra* note 83.

230. *See USDA Organic Produce Pilot Study*, supra note 78, at 6-7 (detailing the ways in which organic crops, for example, become contaminated with pesticide residue).

231. *See supra* notes 112, 158 and accompanying discussion.

of the organic market. The current process focus, even with the advent of required, but limited, certifier crop testing as of January 2013, ignores a major reason that consumers choose organic products – the desire to minimize exposure to pesticides and other harmful chemicals in crops and other food products.[232]

> Consumer motivations for purchasing organic products can be divided into two categories: a desire for regulation of process (e.g., organic food is grown using environmentally sustainable techniques) and a desire for regulation of product (e.g., organic food is pesticide-free) [i.e., end product regulation]. The majority of organic consumers purchase organic for the [end] product regulation.[233]

Initial USDA Agricultural Marketing Service Pilot Study tests of organic produce have found pesticide residues on organic produce, but not on all produce tested.[234] It remains to be seen what testing USDA certified animal products and processed food products would indicate in terms of pesticide and other environmental contamination. To the author's knowledge, no comprehensive study to explore these issues has been undertaken to date.

Enacting stricter standards for the use and testing of pesticides and other synthetic substances in organic foods would more closely align the standard of what constitutes "organic" with consumers' preferences and beliefs.[235] Requiring that a greater segment of USDA certified organic products be tested for a broader range of synthetic substances, in addition to moving

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232. *See* Green, supra note 101, at 805 ("[O]rganic consumers seek products that are free from pesticides, synthetics, and genetically modified ingredients produced through environmentally-friendly and natural methods"); Ariel Lessing, *A Supplemental Labeling Regime for Organic Products: How the Food, Drug and Cosmetic Act Hampers a Market Solution to an Organic Transparency Problem*, 18 MO. ENVTL. L. & POL'Y REV. 415, 430-31 (2011) ("[T]he process-based nature of the regulations ignores the possibility, for example, that organically produced food can be tainted by pesticides blowing onto the foods from nearby fields").

233. Kimberly Ong, *A New Standard: Finding a Way to go Beyond Organic*, 17 N.Y.U. ENVTL. L. J. 883, 884 (2008).

234. *USDA Organic Produce Pilot Study*, *supra* note 78, at 1, 6. *See* Green, *supra* note 101, at 807 (finding residues 23% of the time).

235. *See generally supra* notes 107-117 and accompanying discussion.

the industry in the direction of consumer preferences and expectations, would also help meet ethical obligations owed by producers to consumers.[236] Shifting regulatory focus away from mere processes and inputs and increasing emphasis on the actual resulting food product would strengthen consumer protection and buyer confidence.[237] This is the clearest path to ensuring that the organic food market will never become a "Market for Lemons"[238] and will continue to thrive.

VI.
CONCLUSION

The market for organically grown food has skyrocketed since Congress passed the Organic Foods Production Act of 1990, and the organic market has real significance in terms of demand and interest from the public. Yet, the Organic Foods Production Act defines organic food by the process by which it is produced, and the Act does not go far enough to guarantee product quality such that the food will be free from environmental toxins or pesticide residues or produced strictly in accordance with the Act.

The producer in the organic market will always have access to more information than the consumer about the relative level of toxins in the product and the actual quality of the end product. In this sense, the organic foods market is similar to the used car market described by Professor Akerlof in his article describing a "Market for Lemons" theory. Indeed, Professor Akerlof's "Lemons Market" theory might well apply to the organic food market – suggesting its ultimate collapse – given the lack of symmetrical information between buyer and seller.

Surprisingly, however, the organic foods market appears to be an anomalous market in which consumers buy in the market even though they cannot readily ascertain the quality of the final product. The reasons for this vary from ethical and religious to health concerns, but also relate to the fact that consumers seem to believe organic food is better for people and the environment

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236. Ong *supra* note 233, at 905.

237. *See supra* notes 196-209 and accompanying discussion.

238. *See supra* notes 166-176 and accompanying discussion (for a discussion of why the organic market might become a "Market for Lemons").

and that buying "organic" connotes a high level of sophistication. Although the organic market is thus not a "Lemons Market" subject to imminent collapse, organic food regulation ought to be more focused on end product regulation to maintain consumer confidence, meet consumer expectations, and enhance this profitable and growing market segment.