

# EIGHT STEPS TO UNDERSTANDING THE EVOLUTION OF SUSTAINABLE AGRICULTURE IN THE UNITED STATES

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## I . EARLY HISTORY: HOW DID THE IDEA OF “SUSTAINABLE AGRICULTURE” ALTER TRADITIONAL METHODS OF AGRICULTURAL RESEARCH?

The passage of the 1987 Iowa Groundwater Protection Law initiated the modern era of sustainable agriculture in the United States, which provided for the

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creation of the Leopold Center for Sustainable Agriculture at Iowa State University. In the early years, the main controversy with sustainable agriculture was over what it meant and even what to call it. For example, the United States Department of Agriculture (USDA) for a period referred to it as low-input sustainable agriculture (LISA). In this formation, many traditional agricultural players, especially those in the input sector, saw the development as a threat and feared the lowering of the inputs.<sup>1</sup>

The best legal definition of sustainable agriculture is in Iowa Code section 266.39(1): “For purposes of this section, ‘sustainable agriculture’ means the appropriate use of crop and livestock systems and agricultural inputs supporting those activities which maintain economic and social viability while preserving the high productivity and quality of Iowa’s land.”<sup>2</sup>

## II. EARLY IMPLEMENTATION: WAS SUSTAINABLE AGRICULTURE REALLY A THREAT OR COULD IT MEAN WHATEVER YOU WANTED IT TO?

As the Leopold Center began its work, the main function of the advisory board was to evaluate and make recommendations to provide funding for research on practices and scientific understanding to promote the idea of sustainability, such as the late spring nitrogen field test, buffer strips, and improved livestock waste handling. The pleasant surprise was the interest on the part of researchers to engage in projects taking this new and somewhat revolutionary approach to agriculture.<sup>3</sup> As a result of the early focus on science and knowledge, many of the fears of industry that Sustainable Agriculture was a threat lessened. Instead, a different challenge arose for the advisory board and Leopold Center staff—determining the exact meaning of the term. The problem was unless there was an underlying common understanding of what the meaning of sustainable agriculture is, there is a risk it could become a convenient label to slap on any practice or a product, a problem that stills exists to this day.

The issue was sustainable agriculture could mean anything or nothing if it was left to the individual to define, because no one favors an “unsustainable system.” One tool the advisory committee used to address this was to require researchers describe why the research they were proposing, and its possible

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1. For an early discussion of the legal issues involved, see the first United States law review article ever published addressing the issue, Neil D. Hamilton, *Sustainable Agriculture: The Role of the Attorney*, 20 ENVTL. L. REP. 10021 (1990).

2. Iowa Code § 266.39 (2019).

3. The development of sustainable agriculture as a legitimate research topic received a significant boost in 1989 when the National Research Council through the Board on Agriculture published a groundbreaking study *Alternative Agriculture*. NAT’L RESEARCH COUNCIL, ALTERNATIVE AGRICULTURE (1989) (ebook), <https://perma.cc/6KAX-LEW8>.

outcomes, would promote the concept of sustainable agriculture as set out in the Iowa law. One limitation became apparent as researchers were more adept and interested in working on more objective and measureable issues, such as economics and science. Even fewer researchers were willing or interested when it came to the idea of “social” sustainability, more laden with subjective and value based concepts with political implications of what might be better. Without some foundational agreement, as to what it means to be “sustainable,” i.e., one practice compared to another it may replace, movement towards some view of a more “sustainable” system becomes vague and opaque—in some ways, this is still where we are today and for some, sustainability can mean anything to anyone.<sup>4</sup>

### III. DEVELOPING THE SUPPORT NETWORK: WAS FINDING A DEFINITION SIMPLY A MATTER OF SEEING WHO WAS DOING IT – THE FARMERS?

One hallmark of sustainable agriculture as it was originally developed was the central focus on farm level activities, which are steps a farmer could take on his or her land to either reduce the need for purchased inputs, increase productivity or profitability, or make some positive improvement on soil, water, and other environmental features. This marriage of the need to focus on farm economics to remain in business with a new more heightened focus on the impact farming practices were having on the environment is what really marked sustainable agriculture as being unique, even revolutionary, in terms of agricultural research and policy development. The creation and growth of state based farm groups, such as the Practical Farmers of Iowa, reflects the farmer’s role in sustainable agriculture.<sup>5</sup> The Practical Farmers of Iowa brought producers together not based on politics or commodities, but due to a concern about their sustainability.<sup>6</sup> The existence of these organizations helped lead to the creation of the National Sustainable Agricultural Coalition (NSAC) to represent their interests in Washington and to serve as an organizing clearinghouse for the policy initiatives such as funding for USDA Sustainable Agriculture Research and Education or SARE program.<sup>7</sup> NSAC and SARE are both in existence today and are perhaps the most visible and valuable examples of national initiatives promoting what is the

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4. See Neil D. Hamilton, *The Role of Law in Promoting Sustainable Agriculture: Reflections on Ten Years of Experience in the United States*, 3 DRAKE J. AGRIC. L. 423 (1998).

5. See PRACTICAL FARMERS OF IOWA, <https://perma.cc/BK8H-SFPD> (archived on March 26, 2019).

6. *History*, PRACTICAL FARMERS OF IOWA, <https://perma.cc/K8HX-W3LW> (archived Apr. 7, 2019).

7. See NSAC’s *Guide to the 2018 Farm Bill Conference Process*, NAT’L SUSTAINABLE AGRIC. COALITION. (July 20, 2018), <https://perma.cc/4EH2-FMKF>. <https://perma.cc/2DN2-3LB5>.

traditional view of sustainable agriculture as a farmer focused and farm level driven idea.<sup>8</sup> Both of these programs reflect the language found in the Iowa law which created the Leopold Center and defines one view of the meaning of “sustainable agriculture.”

#### IV. WHO WILL PAY FOR IT: WOULD MAKING “SUSTAINABILITY” SOMETHING CONSUMERS COULD EMBRACE MEAN NEW LIFE FOR THE IDEA?

While sustainability was evolving on the farm and in the agricultural research community, a parallel process was underway in the food sector. Consumers looking for better foods to satisfy their interests drive the energy and interest in this movement, be it in issues like animal welfare or a concern for the environment. The organic food movement, the development of eco-labels, and other forms of practice oriented labeling such as free-range chickens, grass-fed beef, and cage free eggs are examples. Whole books have been written about these developments, and I have written about them in at least a half dozen law review articles considering various dimensions of the connection between farmers and consumers interested in eating “better food.”<sup>9</sup>

The important key to understand about this process is how it helped bring the consumer community into the discussion and understand how their food choices could support farmers who were trying to care for their land and animals. It also provided an important way to monetize these practices in ways that compensates producers for their efforts. The key to recognizing this period of development compared to what would come is that the focus was at the farm level and tools individual producers could use to communicate to consumers to obtain better prices.

#### V. WHO ELSE SAW A FUTURE IN SUSTAINABILITY: AS SUSTAINABILITY MOVED INTO THE CORPORATE FOOD WORLD, WAS THIS A NEW FUTURE OR A DIFFERENT IDEA?

At the same time sustainability was moving into the consumer market, largely through various forms of direct to consumer farm markets, you had parallel recognition and interest in sustainability on the part of the larger food

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8. See *What is Sustainable Agriculture Research and Education (SARE)?*, SUSTAINABLE AGRIC. RES. EDUC., <https://perma.cc/226S-6UXK> (archived June 15, 2019); *NSAC's Guide to the 2018 Farm Bill Conference Process*, *supra* note 7.

9. See generally Neil D. Hamilton, *Food Democracy and the Future of American Values*, 9 DRAKE J. AGRIC. L. 9 (2004); Neil D. Hamilton, *Food Democracy II: Revolution or Restoration?* 1 J. FOOD L. & POL'Y 13 (2005); Neil D. Hamilton, *Moving Toward Food Democracy: Better Food, New Farmers, and the Myth of Feeding the World*, 16 DRAKE J. AGRIC. L. 117 (2011).

manufacturing and marketing sector. For example, in 2008, Professor Michael Roberts, who now heads the Resnick Center on Food Law and Policy at UCLA, offered a summer course at Drake on “Corporate Responsibility in the Food Sector”, which examined the sustainability score cards being developed by companies like Tyson and McDonald’s.<sup>10</sup>

As part of this movement of sustainability into larger realms of food marketing and corporate responsibility, one of the issues was identifying the standards and principles, stakeholders could agree defined the concept. One of the early leaders in the effort to identify the principles needed to underpin the development of sustainable agriculture was the Keystone Policy Center. Their work has evolved to include a range of current initiatives, including one called Field to Market, which uses market forces in an effort to promote sustainability.<sup>11</sup>

#### VI. DELIVERING SUSTAINABILITY ON THE FARM: IF SUSTAINABILITY IS A TOOL IN “SUPPLY CHAIN MANAGEMENT” AND MARKETING – IS THE FUTURE OF CONSERVATION THROUGH PRIVATE INITIATIVES?

In 2016, the Drake Agricultural Law Center received funding from the Leopold Center to examine the emerging interest in private conservation initiatives (PCI’s). As part of the study we examined a range of PCI’s being implemented by Iowa farm organizations and businesses designed to encourage farmers to adopt conservation practices, improve soil health, and address environmental issues such as nitrate loss and climate change. Our PCI research, explaining how the programs are experienced at the farm level and identifying a list of questions farmers should ask about participating in them, was published in April 2018 as part of larger report on water quality, “How To Improve Water Quality on Iowa Farms: A Step-Step Guide for Navigating Conservation Programs for Landowners.”<sup>12</sup>

#### VII. WHAT FUTURE FOR SUSTAINABLE AGRICULTURE: WILL THE FOOD SECTOR BRING NEW MEANING TO SUSTAINABILITY – AND WILL THE CHALLENGE OF CLIMATE CHANGE MAKE “RESILIENCY” MORE IMPORTANT ON THE FARM?

The future of sustainable agriculture will depend on a number of factors. Certainly, the movement of the issue into food marketing and its adoption as an

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10. See, e.g., Jonathan Ellis, *Wal-Mart Pushed Plan to Reduce Fertilizer*, USA TODAY (March 16, 2014), <https://perma.cc/BHX6-FDZK>; Stephanie Strom, *Walmart Aims to Go Greener on Food*, N.Y. TIMES (Oct. 7, 2014), <https://perma.cc/F79N-4BYK>.

11. See *Field to Market*, KEYSTONE POL’Y CTR., <https://perma.cc/TV55-JT4C> (archived March 26, 2019).

12. See DRAKE UNIV. AGRIC. L. CTR., *HOW TO IMPROVE WATER QUALITY ON IOWA FARMS* (2018) <https://perma.cc/TE52-359D>.

organizing device by international food marketers means this issue will continue to evolve. Similarly, the challenges of climate change promise to bring new attention to research, technologies, and farming practices which add resiliency to farm operations and help address and mitigate the impacts from a changing climate.<sup>13</sup> New developments, like the Sustainable Food Policy Alliance, reflect the movement of the idea of sustainable agriculture away from farms to more of a food system concept.<sup>14</sup> At the same time the issue of sustainable agriculture is moving into the corporate food world, structural changes on the farm may be making it a harder goal to achieve.<sup>15</sup> Do structural changes on the farm including increased farm leasing, the increased use of livestock production contracts, and concentration of farm businesses, mean the original idea of sustainable agriculture is not achievable?

VIII. POLITICS PLAYS ITS HAND, AS LEOPOLD CENTER DIES A SLOW DEATH:  
DID SUSTAINABILITY SUCCEED OR JUST SUCCUMB TO OLD POLITICAL  
GRIEVANCES?

In 2017, the Iowa Legislature essentially eliminated the Leopold Center by removing project funding, and repealing the statute creating the Center.<sup>16</sup> An item veto by the Governor preserved the statutory language but did not restore the funding.<sup>17</sup> Without the annual funding of almost \$1.5 million generated under the state's revolving fund, the Center now survives on a limited amount of income from earlier donations, but the reduced funding diminished the Center to a shadow of its former work; the Center is no longer being able to support research projects.<sup>18</sup> The reasons offered for this unfortunate political action ranged from claims its work was complete, to the idea that the private sector was better suited for the research. Boiled to its essence, the real cause stemmed from the acrimonious political

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13. See e.g., Brad Plumer, *How More Carbon Dioxide Can Make Food Less Nutritious*, N.Y. TIMES (May 23, 2018), <https://perma.cc/V7LR-MYD7> (discussing the impacts of climate change effecting agricultural and food production).

14. See SUSTAINABLE FOOD POL'Y ALLIANCE, <https://perma.cc/G3AY-U4JE> (archived March 26, 2019).

15. See e.g., Donnelle Eller, *Nearly 60 Percent of Farm Owners Aren't Farming, One-Third Have No Ag Experience*, DES MOINES REG. (June 29, 2018), <https://perma.cc/BQ6T-4QAA>.

16. See, e.g., William Petroski & Brianne Pfannenstiel, *Iowa Senate OKs Closing ISU's Leopold Center, Other Budget Cuts*, DES MOINES REG. (April 23, 2017), <https://perma.cc/4DYU-FTLW>.

17. Brianne Pfannenstiel & Jeff Charis-Carlson, *Branstad Defends Action Defunding of Leopold Center*, DES MOINES REG. (May 15, 2017), <https://perma.cc/PTU5-ZXF7>.

18. See Jeff Charis-Carlson, *Branstad Vetoes Provision to Dismantle ISU's Leopold Center*, DES MOINES REG. (May 12, 2017), <https://perma.cc/8Z7U-YQT4>.

conflicts relating to water quality and related issues, as the Leopold Center was viewed as a threat to the status quo.

IX. CONCLUSION LOOKING FORWARD: TWO QUESTIONS TO CONTEMPLATE  
ABOUT THE IMPACT OF SUSTAINABLE AGRICULTURE AND ITS FUTURE

As noted before, no one actively endorses an “unsustainable” system of agriculture but having said that there can be real disagreement about what might make one system or practice more or less sustainable than another. It is hard to argue agricultural production in Iowa and the United States has not improved considering the attention given to the concept and to the significant research gains produced. Certainly, the nature of the food marketing system and the options available to consumers have proliferated in the past thirty years, but there are still many questions about the future of sustainable agriculture worth pondering. Here are two to consider:

1. Is Iowa Agriculture (or American Agriculture) more sustainable today than it was thirty years ago, i.e. are we making any progress?
2. Will the impacts of climate change, which agriculture now experiences, bring new energy to identifying and adopting more sustainable farming practices?