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# Tracing the Evolution of Organic/Sustainable Agriculture A Selected and Annotated Bibliography Updated and Expanded, May 2007

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## Introduction

*“Are we going to protect our springs of prosperity, our raw material of industry and commerce and employer of capital and labor combined; or are we going to dissipate them? According as we accept or ignore our responsibility as trustees of the nation’s welfare, our children and our children’s children for uncounted generations will call us blessed, or will lay their suffering at our doors.”* Gifford Pinchot, 1908 <sup>1</sup>

The U.S. Department of Agriculture’s National Agricultural Library (NAL) in Beltsville, Maryland, holds a vast archive of historical documentation covering all aspects of agriculture. This bibliography focuses on works and authors selected from the Library collection that pertain to sustainability in agriculture. It was compiled in the hope of increasing recognition of and access to knowledge that might help address today’s challenges to a sustainable agriculture. This publication builds on an original 1988 bibliography authored by former Alternative Farming Systems Information Center (AFSIC) coordinator, Jane Potter Gates.

The idea of sustainability holds ambiguities and nuances that are sometimes difficult to resolve. Sustainable agriculture was addressed by the U.S. Congress in the 1990 “Farm Bill.” Under that law, “the term sustainable agriculture means an integrated system of plant and animal production practices having a site-specific application that will, over the long term:

- satisfy human food and fiber needs
- enhance environmental quality and the natural resource base upon which the agricultural economy depends
- make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
- sustain the economic viability of farm operations
- enhance the quality of life for farmers and society as a whole.” <sup>2</sup>

“Doing” sustainable agriculture is a less complicated endeavor than defining it. People from all walks of life understand that there are practical steps that can be taken to protect the ecological and human resources that a viable food production system relies on. Many farmers in the U.S. have adopted practices commonly accepted as sustainable. “Hailing from small vegetable farms, cattle ranches and grain farms covering thousands of acres, [producers] have embraced new approaches to agriculture. They are renewing profits, enhancing environmental stewardship and improving the lives of their families as well as their communities.” *The New American Farmer*, 2005. <sup>3</sup>

Organic farming holds a special place under the sustainable agriculture umbrella. The U.S. Department of Agriculture now defines standards for organic practices and for food labeled as “organic.” <sup>4</sup> The commercial impacts of this phenomenon have added new issues to the sustainability discussion. <sup>5</sup>

Although sustainable and organic approaches to food production may seem relatively new, they rest on a base of science and philosophy that has been centuries in the making. The term “sustainable agriculture” did not come into popular use until the late 1980s; <sup>6</sup> however, we know that the notion of land stewardship is a very old one. Some of the earliest known writings reveal sophisticated stewardship ethics and practices. Archaeologists have unearthed indicators of soil and water conservation efforts from civilizations on every continent.

Historical evidence traces an ebb and flow of concern for stewardship and long-term food production over the years. As social, economic and environmental conditions evolved, so did the issues impacting sustainable use of resources. It is not surprising that particularly difficult times and places spawned the most dramatic “learning curves” in terms of both successful and failed practices and systems.

The farmers, researchers, social thinkers, educators, historians, policy makers, artists and everyday citizens represented here analyzed and proposed remedies for problems of their own eras. Some of them were “movers and shakers;” others remained obscure, to be discovered by later generations. Most researched and wrote on the edges of the “conventional wisdom” of their day. Many of them studied history themselves, looking backward for information and direction.

If we listen, voices of these forebears do several things for us. They teach us practical lessons about problems and problem solving. They provide an historical context for understanding contemporary challenges. And they inspire us with their passion. Most importantly, they remind us that history is a continuum. History describes where we have been, defines the aspirations and limitations of our current endeavors, and carries us into the future.

Challenges to a sustainable, global food system that will carry us through the coming years and into the next century are daunting. However, we have access to a storehouse of tools with which to work: a diverse agricultural knowledgebase; interdisciplinary research and expertise; cutting-edge technology applications; and a global communication system with which to share information.

*“Our television documentaries and books show us in graphic detail why the Easter Islanders, Classic Maya and other past societies collapsed. Thus, we have the opportunity to learn from mistakes of distant peoples and past peoples. That’s an opportunity that no past society enjoyed to such a degree.”* Jared Diamond, 2006 <sup>7</sup>

AFSIC staff member Becky Thompson provided invaluable technical assistance and support for this work. Special appreciation goes to Bill Thomas, current AFSIC Coordinator, Stephanie Ritchie, AFSIC Librarian, and former AFSIC coordinators, Jane Potter Gates and Jayne MacLean. Thanks also go to Andy Clark, Sustainable Agriculture Network coordinator, for his helpful review.

<sup>1</sup> *The Conservation of Natural Resources*. Washington DC: U.S. Dept. of Agriculture, 1908. (Farmers’ Bulletin, 327) NAL Call no.: 1 Ag84F no.327

<sup>2</sup> *Food, Agriculture, Conservation, and Trade Act of 1990 (FACTA)*, Public Law 101-624, Title XVI, Subtitle A, Section 1603 Government Printing Office, Washington, DC, 1990. NAL Call # KF1692.A31 1990

<sup>3</sup> *The New American Farmer: Profiles of Agricultural Innovation*, 2<sup>nd</sup> edition. Sustainable Agriculture Research and Education (SARE), 2006.

<sup>4</sup> Information about the National Organic Program is available at <http://www.ams.usda.gov/nop/indexNet.htm>

<sup>5</sup> For a lengthy discussion and list of references about the definition of sustainable agriculture and related terms, see the AFSIC publication, *Sustainable Agriculture: Definitions and Terms*, by Mary V. Gold, 1999 ([http://www.nal.usda.gov/afsic/AFSIC\\_pubs/srb9902.htm](http://www.nal.usda.gov/afsic/AFSIC_pubs/srb9902.htm)).

<sup>6</sup> “In popular literature, sustainable agriculture generally is presented as a new phenomenon. Wes Jackson is credited with the first publication of the expression in his *New Roots for Agriculture* (1980), and the term didn’t emerge in popular usage until the late 1980s.” (“A Brief History of Sustainable Agriculture,” by Fred Kirschenmann, in *The Networker*, vol. 9, no. 2, March 2004)

<sup>7</sup> *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking Press, 2005.

## How to Use this Bibliography

This bibliography includes almost 200 annotated references to historical and current works that pertain to many facets of sustainable agriculture. The references are arranged chronologically starting with 50 AD and concluding with two citations from 2007. Indexes to the chronological list are provided in the form of author, title and topical indexes. This compilation also includes a short list of books and articles about the history of sustainable and organic agriculture (*Appendix A*), and a directory of online libraries containing full-text historical works about agriculture (*Appendix B*).

In her original introduction to *Tracing the Evolution of Organic/Sustainable Agriculture*, Jane Potter Gates wrote of citing works “through which may be traced the evolution of organic/sustainable agriculture and its pattern of philosophical and scientific aspects.” She hoped that the reader would explore each cited author’s references, individual bibliographies and sources, thus “widening the traced path” she had laid out. This expanded version aspires to do the same.

Almost all of the works cited in this bibliography are held in the collection of the National Agricultural Library. NAL call numbers are listed with each citation. Each document is cited chronologically by its original publication date. Within each year, works are listed alphabetically by author. Some annotations include information about other editions of the work.

Selection criteria. This bibliography focuses on books, conference proceedings and essay collections. It does not cite journal articles except in *Appendix A*. Cited works were written by authors recognized as important to the development of sustainable agriculture and organic farming and/or works that are representative of significant sustainable agricultural thought and practices of the time. This compilation is not intended to be exhaustive. AFSIC welcomes suggestions and comments to be addressed in later versions of this bibliography.

Cited in. Many books and articles about the history of sustainable and organic agriculture were consulted in compiling this bibliography. The author acknowledges their guidance. Outstanding reference works are cited in *Appendix A: Articles and Books about Sustainable Agriculture Used in Compiling this Bibliography*. The following abbreviated terms are used for these sources when listed in an individual book annotation’s “Cited in” field. Full citations for “cited in” sources appear in the *Chronological List of Books, Book Chapters and Reports* section or in *Appendix A*. Names in bold text refer to sources listed in Jane Gate’s original 1988 version of this publication.

**Bailey (1915)**

**Balfour (1943)**

Beeman (1993)

Blum (1993)

Coleman (1976)

Conford (1988)

Conford (2001)

Esbjornson (1992)

**Harwood (1983)**

Harwood (1990)

Heckman (2006)

Kirschenmann (2004)

Korcak (1992)

Kuepper, Gegner (2004)

Lehman (1993)

McDonald (1941)

Madden (1998)

**Merrill (1983)**

**Northbourne (1940)**

**Pieters (1927)**

Rateaver (1973)

**Scofield (1986)**

**Waksman (1936)**

Worster (1985)

Annotations. A short paragraph that describes the content and/or significance of the work or author accompanies each citation. “JPG” indicates text written by Jane Potter Gates for the fifty references included in the original 1988 compilation; “MVG” indicates text written by Mary V. Gold for citations added to this edition of the bibliography. Some annotations also include wording from other sources and these sources are so noted.

Other works by the author. Individual annotations may also include an abbreviated list of selected works by the same author. The list emphasizes books that are in the NAL collection and is not meant to be comprehensive. Selected works are cited to help the reader gain a better understanding of the author’s interests and publishing history. They are indexed in the *Index to Titles*.

Availability. Many of the books cited in this bibliography are still in print or are available in reprint editions. Some are now available in full-text online. An Internet source and URL are included in the annotations for these works. Most of these online versions are not maintained by NAL, and, although they have been verified for accuracy and completeness, the author and the National Agricultural Library assume no liability for the legal copyright status or the ongoing availability of these sources. A directory of important libraries of online agricultural literature may be found in *Appendix B*.

For information about how to obtain the books through InterLibrary Loan, consult your local library and/or see the NAL Web site, *Request Library Materials*, <http://www.nal.usda.gov/services/request.shtml>