

## 1945-1979

### *Two separate paths*

Author Joseph Heckman notes that the “period from about 1940 to 1978 may be called the era of polarization of agriculture into organic and non-organic camps.” (“A History of Organic Farming – Transitions from Sir Albert Howard’s War in the Soil to the USDA National Organic Program.” *Renewable Agriculture and Food Systems* (2006), vol, 21, no. 3, pp. 143-150 (full-text at Weston A. Price Foundation, <http://www.westonaprice.org/farming/history-organic-farming.html>) (accessed May 7, 2007)

Mainstream agriculture emphasized improving crop and livestock production volume at every level. Dramatic increases in yield per acre were made and the “Green Revolution” with its breeding of high-yielding grain varieties, monocropping, and extensive use of energy, fertilizer and pesticides came to symbolize farming progress. The agricultural research establishment distanced itself from organic approaches and those who espoused them.

Nonetheless, a small contingent of scientists, farmers, writers and others continued to explore ecological soil building techniques, gardening without synthetic chemicals and other “alternatives” to conventional farming and marketing. The environmental movement’s onset in the late 1960s and early 1970s marked the beginning of the end of this polarization.

1945

Delbet, Pierre Louis Ernest, 1861-1957

### **L’Agriculture et la Santé**

Paris: Denoel, 1945. 111p. Translated title: *Agriculture and Health*.

NAL Call no: 57 D372

Dr. Delbet was a physician who experimented at length with the medicinal applications of magnesium chloride. His studies led him explore the relationship between human health and agriculture, and he espoused “biological” food production systems. He is credited with the first use of the French term, “agriculture biologique.” (“biological agriculture”). In the 1950s, Raoul Lemaire and Jean Boucher built on Delbet’s concept of biological agriculture, creating the widely adopted Lemaire-Boucher system. MVG. See also: Boucher, 1968.

1945

Rayner, Mabel Cheveley, -1948

### **Trees and Toadstools**

London: Faber and Faber, 1946 (oldest edition held by the National Agricultural Library). 71p.

First published in 1945. Republished, 1947.

NAL Call no: 463.88 R21T

Full-text: Soil and Health Library, Steve Solomon; and Journey to Forever Online Library,

<http://www.soilandhealth.org/01aglibrary/01principles.html>;

[http://journeytoforever.org/farm\\_library.html](http://journeytoforever.org/farm_library.html) (accessed Jan. 1, 2007)

Other works by this author: *Problems in Tree Nutrition* (1944).

This non-technical book discusses early mycorrhizal research. MVG

Cited in: Merrill (1983)

1945

Rodale, Jerome Irving, 1898-1971

**Pay Dirt: Farming and Gardening with Composts**

New York: Devin Adair, 1945. 242p. Bibliography. Introduction by Albert Howard.

NAL Call no: 57.4 R61

Full-text: Core Historical Literature of Agriculture, Cornell University,

<http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=2838381> (accessed Jan. 1, 2007)

Other works by this author: *Organic Front* (1948); *Stone Mulching in the Garden* (1949); *Organic Method on the Farm* (1949); *Organic Gardening: How to Grow Healthy Vegetables, Fruits, and Flowers Using Nature's Own Methods* (1955); *Garden Success without Poison Sprays* (1962); *The Prevention System for Better Health*, with Robert Rodale (1974).

The classic statement on the value of soil, this and Rodale's later works sparked and fueled the organic movement in North America. JPG. See also: Rodale, 1948.

Cited in: Beeman (1993); Conford (2001); Harwood (1983); Harwood (1990); Heckman (2006); Korcak (1992); Kuepper, Gegner (2004); Rateaver (1973), Scofield (1986)

1945

Shepard, Ward, 1887-

**Food or Famine, the Challenge of Erosion**

New York: Macmillan, 1945. x, 225p. Includes index.

NAL Call no: 56.7 Sh4F

Full-text: Core Historical Literature of Agriculture, Cornell University,

<http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=3135913> (accessed Jan. 1, 2007)

Other works by this author: *Forests and Floods* (1928); *The Forest Problem* (1929); *Outline of a Proposed Organic Act of Congress to Prevent Forest Degeneration and Destruction and to Preserve and Rebuild Forest Resources* (1940); *La Conservacion de las Tierras Indigenas en los Estados Unidos* (for the National Indian Institute, Department of the Interior, 1942).

In the wake of the Dust Bowl, Shepard wrote eloquently about soil conservation. "Erosion, floods, droughts, the destruction of great land masses, the violent disruption of whole river systems - these are nature's weapons against the impious creature who dares rob her riches without replenishing them." His work pointed to the relationship of soil loss to water and irrigation practices, farming and forestry, land ownership patterns and more. "World agriculture must be established on biological and ecological principles that emulate nature's way of maintaining the dynamic soil-water-plant complex." MVG

Cited in: Beeman (1993)

1946

Kolisko, Eugen, 1893-1939, and Lily Noha Kolisko, 1889-

**Agriculture of Tomorrow**

Gloucester: Kolisko Archive, 1946. 426p. Includes index. Bibliography. Other editions: 2<sup>nd</sup> edition, 1978.

NAL Call no: 30 K833

Full-text: (1939 edition) Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

This account of scientific work based on the principles of Rudolf Steiner details the Koliskos' controlled experiments on the effects of cosmic forces on crop production. JPG

Cited in: Conford (2001); Harwood (1983)

1946

Wrench, Guy Theodore, -1954

**Reconstruction by Way of the Soil**

London: Faber and Faber, 1946. 262p.

NAL Call no: 56 W92

Full-text: Journey to Forever Online Library, [http://journeytoforever.org/farm\\_library.html](http://journeytoforever.org/farm_library.html) (accessed Jan. 1, 2007)

Other works by this author: *The Wheel of Life: A Study of Very Healthy People* (1938) (full-text: Journey to Forever Online Library, [http://journeytoforever.org/farm\\_library.html](http://journeytoforever.org/farm_library.html)) (accessed Jan. 1, 2007).

This book presents an international history of how the earth's soil resources have been used and abused through the centuries, from Roman times through World War II. Wrench calls on post-war society to wage "A new social, non-military war... war on behalf of the soil and of the healthy life and physical freedom of men." (Chapter 24, "Action") Wrench also authored an influential book on human nutrition, *The Wheel of Life: A Study of Very Healthy People* (C.W. Daniel, 1938), a study of the Hunza, a mountain people renowned for their longevity and vigor. Wrench postulated that human health depends on a "whole" diet that emphasizes consumption of natural foods grown in an environmentally sound way. MVG Cited in: Coleman (1976); Conford (1988); Harwood (1983)

1947

Bromfield, Louis, 1896-1956

**Malabar Farm**

New York: Harper, 1947. 405p. Drawings by Kate Lord.

NAL Call no: 31.3 B78M

Other works by this author: *Pleasant Valley* (1945); *Few Brass Tacks* (1946); *Out of the Earth* (1950); *New Pattern for a Tired World* (1954); *From my Experience; the Pleasures and Miseries of Life on a Farm* (1955); *Animals and Other People* (1955); *Wealth of the Soil* (1959).

The journal of the famous Ohio farmer/author, this work intersperses anecdotes and history with practical advice and a recounting of his experiences. It is a sequel to his earlier book, *Pleasant Valley*, published in 1945. JPG

Cited in: Beeman (1993); Blum (1993); Coleman (1976); Conford (2001); Harwood (1983), Harwood (1990); Heckman (2006); Merrill (1983); Rateaver (1973)

1947

Howard, Lady Louise Ernestine Matthaei, 1880-

**The Earth's Green Carpet**

London: Faber and Faber, 1947. 219p. Includes index. Appendices, including "The Indore Process and its Evolution" and a "List of Books" (including periodicals).

NAL Call no: 30 H83

Full-text: Soil and Health Library, Steve Solomon; and Journey to Forever Online Library, <http://www.soilandhealth.org/01aglibrary/01principles.html>; [http://journeytoforever.org/farm\\_library.html](http://journeytoforever.org/farm_library.html) (accessed Jan. 1, 2007)

Other works by this author: *Labour in Agriculture: An International Survey* (1935); *Sir Albert Howard in India* (1953) (full-text: Soil and Health Library, Steve Solomon, <http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007).

This is an account of the ideas and principles of Sir Albert Howard written by his second wife, also a proponent of organic agriculture. JPG  
Cited in: Coleman (1976); Harwood (1983); Merrill (1983)

1948

Lowdermilk, Walter Clay, 1888-1974

**Conquest of the Land Through Seven Thousand Centuries**

Washington: Soil Conservation Service, U.S. Dept. of Agriculture, 1975 (oldest edition held by the National Agricultural Library). 30p. Includes illustrations and photographs taken by Dr. Lowdermilk. (Agriculture Information Bulletin, 99)

NAL Call no: 1 Ag84Ab no.99 1975

Full-text (1953 version): National Agricultural Library Digital Repository (NALDR),

<http://naldr.nal.usda.gov/NALWeb/Search.aspx> (search on "lowdermilk") (accessed Jan. 1, 2007)

Other works by this author: *Erosion Control in Japan* (1934); *History of Soil Use in the Wu t'ai Shan Area*, with Dean R. Wickes (1938); *Soil, Forest, and Water Conservation and Reclamation in China, Israel, Africa, and the United States; an Interview Conducted by Malca Chall* (1969).

"In 1938 and 1939, Dr. Lowdermilk, formerly Assistant Chief of Soil Conservation Service, made an 18-month tour of western Europe, North Africa and the Middle East to study soil erosion and land use in those areas... The main objective of the tour was to gain information from those areas - where some lands had been in cultivation for hundreds and thousands of years - that might be of value in helping to solve the soil erosion and land use problems of the United States." Preface. MVG

Cited in: Blum (1993); Merrill (1983); Worster (1985)

1948

Okada, Mokichi, 1882-1955

**Fertilizer-free Agriculture**

Publisher unknown, 1948. 96p.

NAL Call no: n.a.

Other works by this author: *Health and the New Civilization* (1991).

A Japanese spiritual leader, Okada believed that medical science and agriculture play the most vital roles in the maintenance of life and health. Although English-language documentation for early publications is lacking at the National Agricultural Library, Okada's farming system dates from 1936; his original work (ca. 1946) was called, *A Great Agricultural Revolution*. Okada's philosophy is now associated with "Kyusei Nature Farming" and "Shumei Natural Agriculture." MVG

1948

Osborn, Fairfield, 1887-1969

**Our Plundered Planet**

Boston: Little, Brown, 1948. 217p. Includes bibliography.

NAL Call no: 279 Os1

Full-text: Core Historical Literature of Agriculture, Cornell University,

<http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=2932687> (accessed Jan. 1, 2007)

Other works by this author: *60,000 More Every 24 Hours!* (1951); *The Limits of the Earth* (1953).

Dedicated "to all who care about tomorrow," Osborn's book places the post-World War II environmental situation in historical and political context, from citing the problems of bygone civilizations to speculating about the future of Soviet farming. It is "an attempt to

show what man has done in recent centuries to the face of the earth and the accumulated velocity with which he is destroying his own life sources.” MVG  
Cited in: Beeman (1993)

1948

Rodale, Jerome Irving, 1898-1971

**The Organic Front**

Emmaus PA: Rodale Press, 1948. 198p.

NAL Call no: 56.6 R610

Full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

Other works by this author: *Pay Dirt: Farming and Gardening with Composts* (1945); *Stone Mulching in the Garden* (1949); *Organic Method on the Farm* (1949); *Organic Gardening: How to Grow Healthy Vegetables, Fruits, and Flowers Using Nature's Own Methods* (1955); *Garden Success without Poison Sprays* (1962); *The Prevention System for Better Health*, with Robert Rodale (1974).

J. I. Rodale called the movement “organiculture,” the “new, yet age-old method.” JPG. See also: Rodale, 1945.

Cited in: Beeman (1993); Conford (2001); Harwood (1983); Harwood (1990); Heckman (2006); Merrill (1983)

1949

Blackburn, John Stead, compiler, 1882-

**Organic Husbandry: A Symposium**

London: The Biotechnic Press, 1949. 160p. Annotated bibliography, p. 149-160.

NAL Call no: 56.6 B56

This unique compendium of papers includes such diverse sources as Sir Albert Howard's essay, “The Fresh Produce of Fertile Soil is the Real Basis of Public Health,” “My Compost Garden,” by L.F. Easterbrook and “Is Digging Necessary?” by F. C. King. The appended bibliography of historical and contemporary books is delightfully annotated by the compiler.  
MVG

Cited in: Conford (2001)

1949

Butler, Lowell F.

**The Decreasing Fertility of Western Soil**

Denver: Atlas Printing and Engraving Co., 1949. 39p. Foreword by A. R. Bunger.

NAL Call no: 56.6 B97

Butler, an agricultural educator and plant pathologist, addressed, “soil exhaustion” and its remedies specific to calcareous, irrigated soils in the western United States. MVG

1949

Leopold, Aldo Carl, 1886-1948

**A Sand County Almanac and Sketches Here and There**

New York: Oxford University Press, 1949. 226p. Illustrated by Charles W. Schwartz.

NAL Call no: 409 L552

Other works by this author: *Game Management* (1933); *Ecological Conscience* (1947); *Round River*; *From the Journals of Aldo Leopold*, edited by Luna B. Leopold (1953); *The River of the*

*Mother of God and Other Essays*, edited by Susan L. Flader and J. Baird Callicott (1991); *For the Health of the Land: Previously Unpublished Essays and Other Writings*, edited by J. Baird Callicott and Eric T. Freyfogle (1999).

In this well-known collection of essays, Leopold presents the case for a land ethic as a product of social evolution. JPG

Cited in: Beeman (1993); Esbjornson (1992); Lehman (1993)

1949

Picton, Lionel James, 1874-

**Nutrition and the Soil, Thoughts on Feeding**

New York: Devin Adair, 1949. ix, 374p. Introductory essay on creative medicine, by Jonathan Forman. First published in Great Britain as *Thoughts on Feeding*.

NAL Call no: 56.6 P58

Full-text: Core Historical Literature of Agriculture, Cornell University,

<http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=3134147> (accessed Jan. 1, 2007)

Picton, a medical doctor, was the person who “linked [Sir Albert] Howard’s work on crop breeding and Sir Robert McCarrison’s studies in nutrition. He brought the two men together in 1939 for the launch of the ‘Medical Testament,’ a document urging investigation of the relationship between compost-grown food and human health.” “Organic Origins: The Ideas Shaping the Soil Association 60 Years Ago,” by Phillip Conford, in *Living Earth*

*Newsletter*, Spring 2006 ([http://www.soilassociation.org/web/sa/saweb.nsf/848d689047cb466780256a6b00298980/bb02cc7c62b6ce7c802571a30042f3ef/\\$FILE/Ideas%20shaping%20the%20Soil%20Association%2060%20years%20ago.pdf](http://www.soilassociation.org/web/sa/saweb.nsf/848d689047cb466780256a6b00298980/bb02cc7c62b6ce7c802571a30042f3ef/$FILE/Ideas%20shaping%20the%20Soil%20Association%2060%20years%20ago.pdf)) (accessed Feb. 1,

2007). MVG

Cited in: Coleman (1976); Rateaver (1973)

1950

Cocannouer, Joseph A.

**Weeds: Guardians of the Soil**

New York: Devin Adair, 1950. 179p. Brief list of “other books on organiculture” opposite title page.

NAL Call no: 79 C04

Full-text: Journey to Forever Online Library, [http://journeytoforever.org/farm\\_library.html](http://journeytoforever.org/farm_library.html) (accessed Jan. 1, 2007)

Other works by this author: *Farming with Nature* (1954; reissued as *Organic Gardening and Farming*, 1997); *Water and the Cycle of Life* (1958).

Called a “pioneering work” in the advocacy of the controlled use of weeds, this book’s author wrote on other subjects having to do with modern farming practices. JPG

Cited in: Coleman (1976); Harwood (1983); Harwood (1990); Merrill (1983); Rateaver (1973)

1950

University of California Berkeley Sanitary Engineering Research Laboratory

**Composting for Disposal of Organic Refuse**

Berkeley CA: Sanitary Engineering Research Laboratory, 1950. 42p. (Technical Bulletin, 1)

NAL Call no: 57.4 C12

This study examines a Berkley CA modification of the Becari municipal composting system, successfully instituted in Italy. Although U.S. interest in commercial city composting systems peaked and then subsided in the early 1950s, the legacy of European and U.S. experiments from this period served a successful revival of large-scale composting efforts instituted in the 1980s and 1990s. MVG

Cited in: Blum (1993)

1951

Sykes, Friend Frank, 1888-1965

**Food, Farming and the Future**

London: Faber and Faber, 1951. Introduction by Louise E. Howard.

NAL Call no: 32 Sy4F

Other works by this author: *This Farming Business* (1944); *Humus and the Farmer* (1946) (full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007); *Living from the Land: A Guide to Farm Management* (1957); *Modern Humus Farming* (1959).

An experienced British farmer, the author of this book also wrote *Humus and the Farmer* (1946) and *Modern Humus Farming* (1959). JPG

Cited in: Coleman (1976); Conford (1988); Conford (2001); Harwood (1983); Harwood (1990); Korcak (1992); Merrill (1983)

1952

Hyams, Edward Solomon, 1912 -1975

**Soil and Civilization**

London; New York: Thames and Hudson, 1952. 312p. Includes bibliography. Republished, Harper and Row, 1976. (The Past in the Present Series)

NAL Call no: 56 H99

Other works by this author: *Plants in the Service of Man 10,000 Years of Domestication* (1971).

A classic book that describes the parallel relationship between the decline of many of the world's great civilizations and the degradation of their soil resources. MVG

Cited in: Conford (1988); Conford (2001); Merrill (1983); Worster (1985)

1953

Odum, Eugene Pleasants, 1913-2002, and Howard Thomas Odum, 1924-2002

**Fundamentals of Ecology**

Philadelphia: Saunders, 1953. 384p. Includes bibliography. Other editions: 2<sup>nd</sup> edition, 1959; 3<sup>rd</sup> edition, 1971; 5<sup>th</sup> edition, with Gary Barrett, 2004.

NAL Call no: 442 Od8

Other works by Eugene Odum: *Ecology and Our Endangered Life-support Systems* (1989). Other works by Howard Odum: *Environment, Power, and Society* (1971); *Energy Basis for Man and Nature*, with Elizabeth C. Odum (1976); *Ecological and General Systems: An Introduction to Systems Ecology* (1994); *Environmental Accounting: EMERGY and Environmental Decision Making* (1996).

This book was one of the first textbooks to embrace a holistic view of ecosystems and human activities. Systems ecology pioneer, Eugene Odum, is listed as the sole author on the first edition of this work; collaboration with his brother Howard commenced with succeeding editions. Over the years, both brothers educated a wide audience about ecological and environmental issues. MVG

1954

Hainsworth, Peter Hugh, 1921-  
**Agriculture, a New Approach**

London: Faber and Faber, 1954. 248p. Includes index. Bibliography. Glossary. Republished as *Agriculture, the Only Right Approach: Science Says There is a Difference* (Rateaver, 1976).  
NAL Call no: 30 H12

One of the best early sources of technical information regarding natural fertilizing, this represents an “attempt to gather together relevant material that may have some bearing on the results achieved by, ..organic methods.” JPG

Cited in: Blum (1993); Coleman (1976); Harwood (1983); Harwood (1990); Kuepper, Gegner (2004); Merrill (1983)

1954

Nearing, Helen, 1904-1995, and Scott Nearing, 1883-1983

**Living the Good Life: Being a Plain Practical Account of a Twenty Year Project in a Self-subsistent Homestead in Vermont, Together with Remarks on How to Live Sanely and Simply in a Troubled World**

Harborside ME: Social Science Institute, 1954. 209p. Includes bibliography. Reprinted, 1970.  
NAL Call no: 281.2 N27

Other works by these authors: *The Maple Sugar Book, Being a Plain, Practical Account of the Art of Sugaring Designed to Promote an Acquaintance with the Ancient as Well as the Modern Practice, Together with Remarks on Pioneering as a Way of Living in the Twentieth Century* (1950); *Building and Using our Sun-heated Greenhouse: Grow Vegetables All Year-round* (1977); *Continuing the Good Life* (1979).

The Nearings became mentors to a generation of back-to-the-landers and modern homesteaders during the late 1960s and 1970s. The couple’s inspirational writings were based on practical experience gained from life on their organic farmsteads in Vermont and Maine. MVG

Cited in: Rateaver (1973)

1954

Wickenden, Leonard

**Gardening with Nature: How to Grow Your own Vegetables, Fruits and Flowers by Natural Methods**

New York: Devin Adair, 1954. 392p. Includes index. Suggested readings.  
NAL Call no: 90 W632

Other works by this author: *Make Friends with Your Land: A Chemist Looks at Organicculture* (1949); *Our Daily Poison; the Effects of DDT, Fluorides, Hormones and Other Chemicals on Modern Man* (1955).

Depicted by the author, who has a chemistry background, as largely a “how-to” book, this work integrates Wickenden’s advice with the scientific basis on which the organic concept of plant growth was built. Readers can thus learn both organic gardening practices and how to defend them. In 1949 Wickenden had written the popular *Make Friends with Your Land: A Chemist Looks at Organicculture*. JPG

Cited in: Coleman (1976); Harwood (1983); Harwood (1990); Rateaver (1973)



1954

Yeomans, Percival Alfred, 1905-1984

**The Keyline Plan**

Sydney: P.A. Yeomans, 1954. 120p. Also entitled *The Australian Keyline Plan*.

NAL Call no: 282 1992 Y4K

Full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

Other works by this author: *The City Forest: The Keyline Plan for the Human Environment Revolution* (1951); *Challenge of Landscape: the Development and Practice of Keyline* (1958) (both in full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007); *Water for Every Farm* (1965, updated and reissued by Ken Yeomans in 1993).

P.A. Yeomans pioneered “the use of on farm irrigation dams in Australia, as well as chisel plows and subsoil aerating rippers. Yeomans perfected a system of amplified contour ripping that controlled rainfall run off and enabled the fast flood irrigation of undulating land with out the need for terracing.” *Keyline Designs* Web site (<http://www.keyline.com.au/>) (accessed Apr. 23, 2007). MVG

1955

Easey, Ben, 1925-

**Practical Organic Gardening**

London: Faber and Faber, 1955. 151p. Includes index. Bibliography. Appendices. Lists of gardens, suppliers, and organizations. Other editions: Revised, 1976.

NAL Call no: 57.4 Ea7

This is a substantive work on the subject, with a thorough and well-documented framework. JPG

Cited in: Coleman (1976); Conford (2001)

1955

Stout, Ruth, 1891-1980

**How to Have a Green Thumb without an Aching Back: A New Method of Mulch Gardening**

New York: Exposition Press, 1955. 164p. Reissued in 1987.

NAL Call no: SB453.S76 1955 DNAr

Other works by this author: *Gardening without Work; for the Aging, the Busy, and the Indolent* (1961, republished 1998); *The Ruth Stout No-work Garden Book* (1971).

Although mulch gardening was not really “new” in the 1950s, this popular work defined and encouraged no-till techniques for small-scale growers. It renewed interest in soil biological processes and organic gardening for a new generation. MVG

Cited in: Rateaver (1973)

1955

Turner, Newman, 1913-

**Fertility Pastures: Herbal Leys as the Basis of Soil Fertility and Animal Husbandry**

London: Faber and Faber, 1955. 204p. Includes index.

NAL Call no: 60.1 T85

Full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

Other works by this author: *Fertility Farming* (1951); *Herdsmanship* (1952) (both in full-text: Soil

and Health Library, Steve Solomon, <http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007).

Also spelled “lea”; the dictionary defines ley as “arable land sown to grasses or clover for hay or grazing and usually plowed and planted with other crops after two or three years.” Turner boasts that the “herbal ley is my manure merchant, my food manufacturer and my vet, all in one.” JPG

Cited in: Blum (1993); Coleman (1976); Conford (2001); Harwood (1983); Merrill (1983)

1957

Gilbert, Frank Albert, 1900-

**Mineral Nutrition and the Balance of Life**

Norman OK: University of Oklahoma Press, 1957. xv, 350p. Bibliography, p. 264-336.

NAL Call no: 386.3 G37

Other works by this author: *Mineral Nutrition of Plants and Animals* (1948) (full-text: Core Historical Literature of Agriculture, <http://chla.library.cornell.edu/cgi/t/text/text-idx?c=chla;idno=2837840>) (accessed Feb. 1, 2007); *Metal Trace Elements in Agriculture* (1949).

This encyclopedic review of research and literature concerning mineral nutrition was the first compilation of its kind. Its breadth, extensive bibliography and illustrative photographs continue to make it a valuable tool in understanding soil-plant, animal and human nutrition relationships. MVG

Cited in: Blum (1993); Merrill (1983)

1957

Rowe-Dutton, Patricia

**The Mulching of Vegetables**

Farnham Royal, England: C.A.B. International Bureau of Horticulture and Plantation Crops, 1957. 169p. (Technical Communication, 24)

NAL Call no: 84 IM72

This is a comprehensive review of research about mulching including mulching's relationship to plant diseases and erosion in vegetable production. MVG

Cited in: Coleman (1976)

1957

Voisin, André, 1903-1964

**Grass Productivity**

New York: Philosophical Library, 1959. 353p. Translated from the French, *Productivité de l'Herbe*, by Catherine T. M. Herriot. Includes bibliography. Reprinted, 1988.

NAL Call no: 60.1 V87Ge

Other works by this author: *Soil, Grass, and Cancer: Health of Animals and Men is Linked to the Mineral Balance of the Soil* (1959, republished by Acres U.S.A., 1999); *Better Grassland Sward; Ecology, Botany, Management* (1960); *Rational Grazing: The Meeting of Cow and Grass; a Manual of Grass Productivity*, with Antoine Lecomte (1962); *Grass Tetany* (1963?) (full-text: Soil and Health Library, Steve Solomon, <http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007); *Fertilizer Application: Soil, Plant, Animal* (Three of 25 lectures, entitled *Soil, Plant, and Animal*, delivered at Laval University, 1965).

This is the classic work stating the principles and practice of what Voisin called “rational grazing,” a grazing system based on plant-growth cycles and animal health and habits.

Moving animals from pasture to pasture was not a new idea in the late 1950s; however, this work, focused on the science of the “meeting of cow and grass.” His “laws of rational grazing” laid the foundation for “rotational grazing,” “intensive grazing,” “management intensive grazing,” “pasture-based production” and related systems. MVG  
Cited in: Coleman (1976); Merrill (1983)

1958

Krasil'nikov, Nikolai Aleksandrovich, 1896-

**Soil Microorganisms and Higher Plants**

Moscow: Academy of Sciences of the USSR, 1961 (English edition). 474p. Translated by Y. Halperin. Jerusalem, Israel Program for Scientific Translations, 1961. Bibliography, p. 413-474.

NAL Call no: QR111 K723 DNAr

Full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

Originally published in Russian in 1958, this text and the lengthy bibliographies provide references to little known Soviet soil scientists and their work. The author presents “basic information on the structure, development, variability and classification of bacteria, actinomycetes and fungi in the light of recent scientific achievements, as well as information on the importance of microorganisms in plant nutrition, the role of micro-activities in the complementary nutrition of plants, the effect of microbes on the vitamin content of plants, their importance in plant development and their influence on soil fertility.” Table of Contents. MVG

1960

Hills, Lawrence Donegan, 1911- 1991

**Down to Earth: Fruit and Vegetable Growing**

London: Faber and Faber, 1960. 192p. Includes index.

NAL Call no: 93.5 H55

Other works by this author: *Russian Comfrey: A Hundred Tons an Acre of Stock Feed or Compost for Farm, Garden or Smallholding* (1953) (full-text: Soil and Health Library, Steve Solomon, <http://www.soilandhealth.org/01aglibrary/01principles.html>) (accessed Apr. 23, 2007);

*Composting for the Tropics; Written from the Experience of our Overseas Members for the Gardeners and Farmers of all Hot Countries* (1963); *Fertility without Fertilizers: A Basic Approach to Organic Gardening* (1977); *Fertility Gardening* (1980); *Fighting Like the Flowers: An Autobiography* (1989).

Journalist and founder of the Henry Doubleday Research Association in Britain (in 1954), Hills was also a horticulturist and very knowledgeable about organic production. MVG  
Cited in: Coleman (1976)

1962

Carson, Rachel, 1907-1964

**Silent Spring**

Boston: Houghton Mifflin, 1962. 368p. Drawings by Lois and Louis Darling. Other editions: 25<sup>th</sup> anniversary edition, 1987.

NAL Call no: 423 C23

Other works by this author: *The Sea Around Us* (1951).

Ahead of her time in many respects, Carson’s revelations about the ecological impacts of pesticide use emphasized the interconnectedness of all life. The impact her work helped

launch a widely supported environmental movement that continues to influence scientific research and policy. Carson's work also proved to be a turning point for interest in modern organic farming. MVG

Cited in: Conford (2001); Esbjornson (1992); Heckman (2006); Kirschenmann (2004); Kuepper, Gegner (2004); Madden (1998); Merrill (1983)

1964

DeBach, Paul, editor

**Biological Control of Insect Pests and Weeds**

New York: Reinhold, 1964. xxiv, 844p. Assistant editor, Evert I. Schlinger. Bibliography, p. 715-815. Other editions: 2<sup>nd</sup> edition, 1991.

NAL Call no: 423 D354

Other works by DeBach: *Biological Control by Natural Enemies* (1974).

Classical biological control based on identifying and importing exotic natural enemies (parasites, predators, or pathogens) and utilizing them for long-term control of target exotic pests, insect or weed has been actively practiced in the U.S. since the late 1900s. DeBach's definition broadened the scope of the term to include more than just the use of natural enemies to "actions of parasites, predators and pathogens in maintaining another organism's density at a longer average than would occur in their absence." MVG

Cited in: Merrill (1983)

1964

Hunter, Beatrice Trum, 1918-

**Gardening without Poisons**

Boston: Houghton-Mifflin, 1964. 318p. Includes index. List of sources; List of suppliers of materials. Appendices. List of Organizations interested in gardening without poisons. Other editions: 2<sup>nd</sup> edition, 1971.

NAL Call no: SB975 H91

Other works by this author: *The Natural Foods Primer: Help for the Bewildered Beginner* (1972); *The Mirage of Safety: Food Additives and Federal Policy* (1982).

One of the early works on biological control of insect pests, a 1971 postscript by the author cites research being done by the USDA. JPG

Cited in: Coleman (1976); Rateaver (1973)

1964

Poirot, Eugene M., 1899-1988

**Our Margin of Life**

New York: Vantage Press, 1964. 159p. Introduction by William A. Albrecht. Reprinted by Acres U.S.A., 1978.

NAL Call no: S624 AIP6

A Missouri farmer/author writes seriously about agriculture, the importance of the soil and a philosophy based on his observations and beliefs. JPG

Cited in: Harwood (1983); Merrill (1983)

1968

Boucher, Jean

**Precis Scientifique et Pratique de Culture Biologique: Methode Lemaire-Boucher**

Angers: Agriculture et Vie , 1968. 281p. In French. Translated title: *Scientific and Practical*

*Precise of Biological Culture; Lemaire-Boucher Method*. Bibliography, p. 281.

NAL Call no: S517.F8B6 1968

Other works by this author: *Une Veritable Agriculture Biologique* (1992)

The system espoused by Dr. Raoul Lemaire (1884-1972), natural grain merchant and researcher, and Dr. Boucher, soil scientist, incorporates organic and agroecological concepts, with a focus on magnesium (per the human nutrition research of Dr. Pierre Delbet) and the use of calcified seaweed as soil amendment. MVG. See also: Delbet, 1945. Cited in: Harwood (1983)

1968

Rusch, Hans Peter, 1906-1977

**Bodenfruchtbarkeit; eine Studie Biologischen Denkens**

Heidelberg: K. F. Haug, 1968. 243p. In German. Translated title: *Soil Fertility*. Bibliography, p. 241-243.

NAL Call no: S598.R8

Rusch, a German soil microbiologist, teamed with Swiss organic-biological farmers Hans Müller (1891-1988) and his wife, Maria Müller (1894-1969) in the early 1950s, to lay the foundation for organic agriculture in German-speaking countries. Müller coined the German term, “organisch-biologischer landbau” (organic-biological farming) in 1949. MVG

1971

Borlaug, Norman Ernest, 1914-

**Mankind and Civilization at Another Crossroad**

Rome: Food and Agriculture Organization of the United Nations, 1971. 73p. “1971 McDougall Memorial Lecture.”

NAL Call no: HD1417.B67 1971

Other works by this author: *Exploratory Genetic Research Undertaken by CIMMYT in Maize, Wheat, Barley and Triticale*, with E.W. Sprague (1979); *Wheat in the Third World*, with Haldore Hanson and R. Glenn Anderson (1982); *Land Use, Food, Energy and Recreation* (1983); *Vetiver Grass: A Thin Green Line Against Erosion*, with Rattan Lal, David Pimentel, Hugh Popenoe, Noel Vietmeyer (1994); *The Green Revolution: An Unfinished Agenda* (2004) (full-text: of lecture online at <http://www.fao.org/docrep/meeting/008/J3205e/j3205e00.htm>) (accessed Apr. 23, 2007).

The author was a central figure in the “Green Revolution” of the 1950s and 1960s and was the winner of the 1970 Nobel Prize for Peace. He helped develop high-yielding varieties of wheat, rice and corn for use in developing countries. These crops increased food production tremendously in some places, especially in Asia, while requiring extensive fertilizer and pesticide use. This lecture confronts the environmental critics of the Green Revolution. Borlaug’s views are emblematic of the divide between technologically- and environmentally-driven concepts of sustainable agricultural systems. MVG  
Cited in: Kirschenmann (2004)

1971

Lappé, Frances Moore

**Diet for a Small Planet**

New York: A Friends of the Earth/Ballantine Book, 1971. xiv, 301p. Illustrated by Kathleen Zimmerman and Ralph Iwamoto. Other editions: Revised and updated edition, 1982.

NAL Call no: TX838.L3

Other works by this author: *Food First: Beyond the Myth of Scarcity*, with Joseph Collins (1977,

revised, 1979); *What Can We Do, a Food, Land, Hunger Action Guide*, with William Valentine (1980); *Hope's Edge: The Next Diet for a Small Planet*, with Anna Lappé (2002).

Lappe's groundbreaking book alerted people to the health and environmental impacts of a meat- and processed food-oriented diet. Her dietary recommendations and their rationale, and accompanying recipes, are timeless. MVG

1971

Logsdon, Gene

**Two Acre Eden**

Garden City NY: Doubleday, 1971. 216p. Bibliography, p. 212-216. Other editions: Revised edition, 1980.

NAL Call no: SB455.L58

Other works by this author: *Homesteading: How to Find New Independence on the Land* (1973); *Small-scale Grain Raising* (1977); *Getting Food from Water: A Guide to Background Aquaculture* (1978); *The Contrary Farmer* (1993); *All Flesh is Grass: The Pleasures and Promises of Pasture Farming* (2004).

Focused on rural living and growing food in sustainable ways, this prolific author has provided practical information, stories and humorous commentary to countless back-to-the-landers, gardeners and farmers over the years. MVG

1971

Rodale, Robert and Glenn F. Johns, 1930-1990

**The Basic Book of Organic Gardening**

New York: Ballantine, 1971. 377p. Based on material which has appeared in *Organic Gardening Magazine*.

NAL Call no: S605.5.R6

Other works by Robert Rodale: *The Challenge of Earthworm Research*, editor (1961); *The Organic Way to Mulching* (1972); *The Prevention System for Better Health*, with J.I. Rodale (1974); *The Cornucopia Papers* (1982); *Save Three Lives: A Plan for Famine Prevention* (1991). See also: *Oral History Interview with Mr. Robert Rodale*, AFSIC (1989) (NAL Call #: Videocassette no.670).

Robert Rodale, journalist, publisher and life-long proponent of regenerative agriculture, expanded on the work his father J.I. Rodale started in the 1930s. In addition to leading the influential Rodale Publishing organization (including *Organic Gardening Magazine* and *Prevention Magazine*), he expanded The Rodale Institute's education, training and research programs. A third generation of Rodales currently carries on this work. MVG  
Cited in: Kirschenmann (2004)

1972

Meadows, Donella, 1941-2001

**Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind**

New York: Universe Books, 1972. 205p. Bibliography, p. 198-205.

NAL Call no: HB871.L5

Other works by this author: *The Electric Oracle: Computer Models and Social Decisions*, with J.M. Robinson (1985); *Global Citizen* (1991); *Beyond the Limits: Confronting Global Collapse, Envisioning a Sustainable Future*, with Dennis Meadows and Jorgen Randers (1993); *Limits to Growth - The 30 Year Update*, with Jorgen Randers and Dennis Meadows (2004).

This study, utilizing computer modeling, examined global economic, population and environmental trends. It was an influential work in the then new debate on earth's "carrying capacity." Meadows paid special attention to sustainable food production systems, developing an ecovillage and an organic farm of her own. She also created innovative information sharing initiatives and a widely-read weekly news column, *Global Citizen*.  
MVG

1973

Hightower, Jim and Agribusiness Accountability Project Task Force on the Land Grant College Complex

**Hard Tomatoes, Hard Times: A Report of the Agribusiness Accountability Project on the Failure of America's Land Grant College Complex**

Cambridge MA: Schenkman, 1973. 268p. Includes bibliographical references. Reissued with "selected additional views of the problems and prospects of American agriculture in the late seventies," 1978.

NAL Call no: S533.H523 1973

Other works by this author: *Eat your Heart Out: Food Profiteering in America* (1975).

This is a biting criticism of Land Grant institution research policy and extension activities. Hightower cites their lack of attention to the interests of small farms and farmers, rural communities and farm workers in favor of agribusiness, large-scale farms and mechanized, production-oriented technology. MVG

1973

Schumacher, Ernst Friedrich, 1911-1977

**Small is Beautiful; Economics as if People Mattered**

New York: Harper and Row, 1973. 290p. Includes bibliographical references.

NAL Call no: HB171.S384

Other works by this author: *Think about Land* (1974).

E.F. Schumacher was very concerned with "The Proper Use of Land" (Part 2 of this book) and the scale of agricultural production. He became involved in organic farming, serving as president of the UK's Soil Association. He espoused conservation in all things including food production and energy use, and advocated the use of "appropriate technology" whenever possible. MVG

Cited in: Scofield (1986)

1974

Jeavons, John

**How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine**

Palo Alto CA: Ten Speed Press, 1979. 116p. Bibliography. Other editions: First edition of this book was published in 1974; most recent edition: 7<sup>th</sup> edition, Ten Speed Press, 2006.

NAL Call no: SB320.6.J43

Other works by this author: *Lazy-bed Gardening: The Quick and Dirty Guide*, with Carol Cox (1993); *The Sustainable Vegetable Garden: A Backyard Guide to Healthy Soil and Higher Yields*, with Carol Cox (1999).

Jeavons, a former systems analyst, writes a "primer on the lifegiving biodynamic/French intensive method of organic agriculture." He is involved with "Ecology Action" in Palo

Alto, California. JPG. [Ecology Action is now based in Willets CA. MVG]  
Cited in: Harwood (1983); Harwood (1990); Kuepper, Gegner (2002)

1975

Lockeretz, William, Robert Klepper, Barry Commoner, Michael Gertler, Sarah Fast, Daniel O'Leary and Roger Blobaum

**A Comparison of the Production, Economic Returns, and Energy-intensiveness of Corn Belt Farms that Do and Do Not Use Inorganic Fertilizers and Pesticides**

St. Louis MO: Washington University, Center for the Biology of Natural Systems, 1975. 62p.  
Includes bibliographical references. (CBNS Report AE 4)

NAL Call no: S605.5.C59 1975

Other works by Lockeretz: *Agricultural Resources Consumed in Beef Production* (1975); *Linkages Between Farming and Other Economic Activities in Agriculturally-dependent Areas* (1988); *Agricultural Research Alternatives*, with Molly D. Anderson. (1993); *Visions of American Agriculture*, editor (2000); *Ecolabels and the Greening of the Food Market*, editor (2003). See also: *Oral History Interview with William Lockeretz*, AFSIC (1991) (NAL Call #: Videocassette no.1217).

This report was one of the first U.S. studies analyzing the economics of organic farming systems. Lockeretz and other agricultural economists of the 1970s led the way to new research on sustainable systems' economic performance, crop yield, energy inputs, cost analysis, conventional vs. organic comparisons and more. MVG

Cited in: Kuepper, Gegner (2004); Harwood (1983)

1976

Boeringa, Rob, editor

**Alternative Methods of Agriculture**

Amsterdam: Elsevier, 1980. 199p. Translation of parts of the original Dutch report, *Alternatieve Landbouwmethode*, prepared in 1976 by the Committee for Research into Biological Methods of Agriculture. References.

NAL Call no: S601.D4 Vol.10

A translation of selections of the famous Dutch report of 1976, this work includes descriptions of each school of ecological agriculture and a literature review on techniques, yields, food quality, impact on the environment and research recommendations. JPG

Cited in: Harwood (1983); Merrill (1983)

1976

Koepf, Herbert H., Bo D. Pettersson and Wolfgang Schaumann

**Biodynamic Agriculture: An Introduction**

Spring Valley NY: Anthroposophic Press, 1976. x, 429p. Translated from the German, *Biologische Landwirtschaft* (1974). Index. Bibliography, p. 404-416.

NAL Call no: S605.5.K59

Full-text: Soil and Health Library, Steve Solomon,

<http://www.soilandhealth.org/01aglibrary/01principles.html> (accessed Jan. 1, 2007)

Other works by Koepf: *What is Bio-dynamic Agriculture?* (translated by W. Brinton and M. Spock, 1979); *Bio-dynamic Sprays* (1988); *The Biodynamic Farm: Agriculture in the Service of the Earth and Humanity*, with R. Shouldice and W. Goldstein (1989); *Soil Fertility in Sustainable Low Input Farming*, edited by J. L. Ruhnau (1992).



This work was originally published in German so the bibliography is of unusual interest.  
JPG

Cited in: Blum (1993); Harwood (1983); Harwood (1990); Merrill (1983)

1976

Merrill, Richard, editor, 1941-

**Radical Agriculture**

New York: Harper and Row, 1976. xix, 459p. Includes bibliographical references and index.  
NAL Call no: S441.R26

One of the earliest collections of essays focusing on alternative and sustainable agriculture, this compilation examines a variety of farm topics including rural and labor issues, aquaculture, renewable energy, cities and farms, land reform and more. Essays come from highly regarded agricultural thinkers including Michael Perelman, Wendell Berry, Jim Hightower, Jerome Goldstein and Helga and William Olkowski. MVG

Cited in: Harwood (1983)

1976

United States Congress

**The Farmer-to-Consumer Direct Marketing Act of 1976**

Washington DC: United States Congress, 1976.

NAL Call no: aHD9003.N37

Full-text: United States Code, Office of the Law Revision Counsel,  
<http://uscode.house.gov/download/pls/07C63.txt> (accessed Jan. 1, 2007)

See also: *National Farmers' Market Directory*, 2006 (full-text: USDA, Agricultural Marketing Service, <http://www.ams.usda.gov/farmersmarkets/map.htm>) (accessed May 7, 2007).

Public Law 94-463, October 8, 1976, "An act to encourage the direct marketing of agricultural commodities from farmers to consumers," heralded a rapid increase in the number of U.S. farmers' markets. Provisions of this act, along with strong consumer demand, continue to support growth of local and regional markets and other direct marketing activities. The U.S. Department of Agriculture's *National Farmers' Market Directory*, first compiled in 1994, listed 4,385 U.S. farmers markets in 2006 (up from 1,755 markets in 1994). *USDA Releases New Farmers Market Statistics*, AMS Program Announcement, Dec. 5, 2006

(<http://www.ams.usda.gov/tmd/MSB/PRFarmersMarketStatistics.pdf>) (accessed May 7, 2007). MVG

1977

Berry, Wendell, 1934-

**The Unsettling of America: Culture and Agriculture**

San Francisco: Sierra Club Books, 1977. 228p. Chapter notes. Other editions: 2<sup>nd</sup> edition, Sierra Club Books, 1986. 3<sup>rd</sup> edition, Sierra Club Books, 1996.

NAL Call no: HD1761.B47

Other works by this author: *The Gift of Good Land: Further Essays, Cultural and Agricultural* (1981); *What are People For? Essays* (1990); *Citizenship Papers* (2003).

A review/criticism on agricultural policy today, this work presents the author's position: "the care of the earth is our most ancient and most worthy and, after all, our most pleasing responsibility." JPG

Cited in: Esbjornson (1992); Harwood (1983); Harwood (1990); Kirschenmann (2004)

1977

Dideriksen, Raymond Ivan, Allen Ray Hidlebaugh and Keith O. Schmude

**Potential Cropland Study**

Washington DC: Soil Conservation Service, U.S. Dept. of Agriculture, 1977. 104p. Chiefly tables. (Statistical Bulletin, 578)

NAL Call no: 1 Ag84St no.578

The 1970s saw a growing concern with land-use issues and with loss of farmland in particular. This study, done at the request of Earl Butz, U.S. Secretary of Agriculture, was one of the first to document losses of farmland to urban development. During 1967-1975, “nearly 2.1 million acres each year were converted to urban and built-up areas. About 30 percent of the land converted to urban and built-up areas each year comes from cropland.” This publication helped solidify government and conservation group support to preserve agricultural lands. MVG  
Cited in: Lehman (1993)

1977

Lovins, Amory B. and Friends of the Earth International

**Soft Energy Paths: Toward a Durable Peace**

San Francisco: Friends of the Earth International, 1977. xx, 231p. Includes bibliographical references and index.

NAL Call no: TJ163.2.L678

Other works by this author: *Energy Unbound: A Fable for America's Future*, with L Hunter Lovins and Seth Zuckerman (1986); *Natural Capitalism: Creating the Next Industrial Revolution*, with Paul Hawken and L. Hunter Lovins (1999); *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size* (2003); *Winning the Oil Endgame: Innovation for Profit, Jobs and Security*, with E. Kyle Datta, Odd-Even Bustnes, Jonathan G. Koomey and Nathan J. Glasgow (2005) (see Online books by Lovins at <http://onlinebooks.library.upenn.edu/webbin/book/lookupname?key=Lovins%2C%20Amory%20B.%2C%201947->) (accessed Apr. 23, 2007).

Amory Lovins and the work of the Rocky Mountain Institute where he is CEO, have influenced ideas about energy production and use in agriculture. His “soft energy path” advocates an approach that combines energy conservation and efficiency; use of renewable sources of energy; and local, small-scale generation and use of energy. MVG

1978

Besson, J. M. and H. Vogtmann, editors

**Towards a Sustainable Agriculture**

Aarau, Switzerland: Wirz; International Federation of Organic Agriculture Movements, 1978. 243p. Papers given at an international conference held in Sissach, Switzerland, 1977. References at ends of articles.

NAL Call no: S605.5.T68

These are proceedings of the 1<sup>st</sup> conference of the IFOAM, in French, German and English. All IFOAM proceedings are recommended. JPG [A catalog of available IFOAM published proceedings may be found at <http://shop.ifoam.org/bookstore/> (accessed May 21, 2007)]  
Cited in: Harwood (1983); Merrill (1983)

1978

Brown, Lester Russell, 1934-

**The Twenty-ninth Day: Accommodating Human Needs and Numbers to the Earth's Resources**

New York: Norton, 1978. xiii, 363p.

NAL Call no: GF41.B76

Other works by this author: *American Agriculture in a Hungry World* (1967); *The Social Impact of the Green Revolution* (1971); *Who will Feed China? Wake-up Call for a Small Planet* (1995); *The Agricultural Link: How Environmental Deterioration Could Disrupt Economic Progress* (1997); *Outgrowing the Earth: The Food Security Challenge in the Age of Falling Water Tables and Rising Temperatures* (2004).

Mr. Brown, an agricultural economist and a pioneer in the environmental movement, founded the Worldwatch Institute in 1974. In this work, unsustainable uses of water, soil and energy resources are discussed in the context of projected population growth, inappropriate political decision-making and inadequacy of technical remedies. MVG

1978

Dahlberg, Kenneth A.

**Beyond the Green Revolution: The Ecology and Politics of Global Agricultural Development**

New York: Plenum Press, 1978. xiii, 256p. Includes bibliographical references and index.

NAL Call no: HD1415.D273

Other works by this author: *New Directions for Agriculture and Agricultural Research: Neglected Dimensions and Emerging Alternatives*, editor (1986).

The "Green Revolution" of the 1960s and 1960s was characterized by innovative, high-yielding varieties of cereal crops developed for use in developing countries. These crops boosted food security while requiring extensive technology for planting, irrigation, fertilizing, pest control and harvesting. Dahlberg outlines the social and ecological costs of this approach and makes the case for more sustainable agricultural alternatives in both industrialized and developing countries. MVG. See also: Borlaug, 1971.

Cited in: Harwood (1990)

1978

Gussow, Joan Dye

**The Feeding Web: Issues in Nutritional Ecology**

Palo Alto CA; New York: Bull Publishing; trade distribution in U.S. by Hawthorn Books, 1978. xvi, 457p.

NAL Call no: HD9000.5 .F36

Other works by this author: *The Nutrition Debate: Sorting Out Some Answers*, with Paul Thomas (1986); *Chicken Little, Tomato Sauce and Agriculture: Who Will Produce Tomorrow's Food?* (1991); *This Organic Life: Confessions of a Suburban Homesteader* (2001).

Dr. Gussow, a nutrition professor at Teachers College, Columbia University, was the first to use the term "nutritional ecology," and to focus on the entire food chain in terms of environmental, nutritional and economic sustainability. The food system includes not only production and harvesting, but storing; transporting; processing and packaging; distribution and trade; food composition; food preparation and consumption; and waste disposal. She argues that consumers need to make food choices in terms of not only health issues, but in terms of environmental and social values as well. MVG

1978

Mollison, Bill C. and David Holmgren

**Permaculture 1: A Perennial Agricultural System for Human Settlements**

Hobart, Australia: Environmental Psychology, University of Tasmania, 1978. vii, 128p.

Bibliography, p. 126-127.

NAL Call no: S589.7.M6

Other works by Mollison: *Permaculture Two: Practical Design for Town and Country in Permanent Agriculture* (1979; updated 1999); *Permaculture: A Designers' Manual* (1988); *Introduction to Permaculture*, with Reny Mia Slay (1991).

Australians Mollison and Holmgren co-developed the permaculture system of landscape design, a holistic system now taught and implemented throughout the world. MVG

1978

Oelhaf, Robert C., 1938-

**Organic Agriculture: Economic and Ecological Comparisons with Conventional Methods**

Montclair NJ: Allanheld, Osmun, and Company, 1978. 271p. Includes index. References.

NAL Call no: S605.5.066

Other works by this author: *The Economics of Organic Farming* (Ph.D. dissertation, University of MD, 1976).

The author, trained in theology, science and engineering, looks at more than just comparative economic issues and presents a detailed study of internal and external costs and benefits of ecological and conventional agriculture. JPG

Cited in: Harwood (1983); Heckman (2006); Merrill (1983)

1978

Schwartz, James W.

**A Bibliography for Small and Organic Farmers: 1920-1978**

Beltsville MD: Agricultural Research, United States Department of Agriculture, 1978. Same title published in 1981 as number 11 in the series, Bibliographies and Literature of Agriculture.

NAL Call no: aZ5074 O7S3

This bibliography cites documents that relate to organic and small-scale farming published from 1920 through 1978. USDA National Agricultural Library staff continues to compile bibliographies on topics related to sustainable, organic and alternative farming. See the Alternative Farming Systems Information Center (AFSIC) Web site for updated bibliographies on sustainable and organic topics (<http://afsic.nal.usda.gov>) (accessed Feb. 1, 2007). MVG

1978

United States Congress House Committee on Agriculture

**Agricultural Land Retention Act: Report Together with Dissenting Views to Accompany H.R. 11122**

Washington DC: Government Printing Office, 1978. (House Report - 95<sup>th</sup> Congress, 2d Session, 95-1400)

NAL Call no: KF32.A3 1978b

The Agricultural Land Retention Act, proposed in 1977, was one of the first attempts to address the loss of farmland to urban development through legislation. It ultimately failed to pass the Congress (in 1980). Many of its provisions have since been instituted in the

Farmland Protection Policy Act, the 1981 Agriculture and Food Act and in the form of new agencies and state and local legislation. Non-governmental programs and advocacy continue to keep farmland protection near the top of the sustainable agriculture agenda. MVG  
Cited in: Lehman (1993)

1978

Whealy, Kent, editor  
**The Third Annual True Seed Exchange**  
Princeton MO: Kent Whealy, 1978.  
NAL Call no: SB115.T5

Whealy and his wife, Diane Ott Whealy, founded the Seed Savers Exchange in 1975. It was one of the first organizations to alert gardeners and farmers to the importance of saving “heirloom” seeds. “The genetic diversity of the world’s food crops is eroding at an unprecedented and accelerating rate. The vegetables and fruits currently being lost are the result of thousands of years of adaptation and selection in diverse ecological niches around the world...” *Seed Savers* Web site (<http://www.seedsavers.org/>) (accessed Feb. 1, 2007).  
MVG

1979

Cox, George W. and Michael D. Atkins  
**Agricultural Ecology: An Analysis of World Food Production Systems**  
San Francisco: W. H. Freeman, 1979. 721p. Includes bibliographies and index.  
NAL Call no: S589.7.C69

Agroecology, a multi-disciplinary field established in the 1980s, owes much to this pioneering work. Studies and programs on the topic continue to point the way to sustainable agricultural systems and practices. MVG. See also: Altieri, 1983 and Gliessman, 1990.

1979

Minnich, Jerry and Marjorie Hunt, editors  
**Rodale Guide to Composting**  
Emmaus PA: Rodale Press, 1979. 405p. Includes index. Bibliography, p. 385-389.  
NAL Call no: S661.M56

The most complete book on composting at the time, this volume offered credible science and practical methodology for farmers and gardeners. MVG  
Cited in: Harwood (1983); Harwood (1990)

1979

Pimentel, David and Marcia Pimentel  
**Food, Energy, and Society**  
New York: Wiley, 1979. viii, 165p. Includes index. Bibliography, p. 151-162. Most recent edition: University Press of Colorado, 1996. (Resource and Environmental Sciences Series)  
NAL Call no: HD9000.6.P55 1979a  
Other works by David Pimentel: *Ecological Effects of Pesticides on Nontarget Species* (1971); *World Food, Pest Losses, and the Environment*, editor (1978); *Handbook of Energy Utilization in Agriculture*, editor (1980); *CRC Handbook of Pest Management in Agriculture*, editor (1981); *Water Resources, Agriculture and the Environment* (2004) (full-text: Cornell University, [http://dspace.library.cornell.edu/bitstream/1813/352/1/pimentel\\_report\\_04-1.pdf](http://dspace.library.cornell.edu/bitstream/1813/352/1/pimentel_report_04-1.pdf)) (accessed Apr. 23, 2007).

The Pimentels' groundbreaking work details energy use in the production of livestock, grains, fruits, vegetables, forage crops and fish; food processing and transport; and the impact of energy use on the environment. Dozens of charts and tables, as well as a lengthy reference list, are included. "Thus, the aim of this book is to explore the interdependencies of food, energy and their impacts on society. These analyses we hope will be a basis for planning and implementing policies of individuals and nations as they face the inevitable dilemma - how can everyone be fed, given the limited resources of the earth." Preface.  
MVG

1979

Walters, Charles Jr. and C. J. Fenzau, 1926-

**An ACRES U.S.A. Primer**

Raytown MO: Acres U.S.A., 1979. 465p. Glossary. Index. Field notes. Lists of Eco-suppliers. Most recent edition: *Ecofarm: An Acres U.S.A. Primer*, 3<sup>rd</sup> edition, 2003.

NAL Call no: S605.5.W34

Other works by this author: *The Carbon Connection*, with Leonard Ridzon (1990); *Weeds: Control without Poisons* (1991, revised 1999); *A Farmer's Guide to the Bottom Line* (2002); *Reproduction and Animal Health*, with Gearld Fry (2003).

A "first reader" in eco-agriculture, this book is written from an organic perspective on the basis of plant and soil science, agronomy and pest control. JPG

Cited in: Harwood (1983); Kuepper, Gegner (2004); Merrill (1983)

## **1980-2007**

### ***The sustainable agriculture and modern organic farming movements take root***

The late 20<sup>th</sup> century saw great progress in sustainable agriculture practice, policy and research activity. The term "sustainable agriculture" was adopted during this period. The works below speak to the great variety of farming topics that have come to fall under the sustainability umbrella.

### ***Important essay collections and conference proceedings, 1980s***

A wide range of ideas and knowledge was presented in collections of research reports, conference papers and philosophical essays written by farmers, researchers and policy makers. Some of the most significant compilations are listed in this section.

1980

Jackson, Wes, 1936-

**New Roots for Agriculture**

Lincoln NE: University of Nebraska Press, 1980. 151p. References and notes at ends of chapters.

Other editions: Revised edition 1985.

NAL Call no: S441.J25

Other works by this author: *Altars of Unhewn Stone: Science and the Earth* (1987); *Becoming Native to this Place* (1994). See also: *Oral History Interview with Wes Jackson*, AFSIC (1990) (NAL Call #: Videocassette no.731).

"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 (Science and Environmental Health Network), March 2004. The new edition