History of Organic Agriculture

• 1 Historical Trends in U.S. Organic Agriculture
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• 2 History in Four Phases:
  • Initial Development
  • Polarization
  • Transition: Recognition
  • Current: Accommodation/Commodification

• 3 The Past
  • Response to fertilizer, breeding, and mechanization
  • "Biological" vs. Input agriculture

• 4 1900-1940: Initial Development
  • Sir Albert Howard (1873-1947)
  • British Farmer and Nobleman
  • The "Father" of organic agriculture
  • The "Indore Method" Compost!
  • Spent 25 years in India
  • Extension Educator for the colonies
  • Decided that the Indians had it right

• 5 Sir Howard's Philosophy
  • Harvest negatively impacts soil fertility
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- Soils must be renewed
- Mixed cropping systems: Animals and plants
- Healthy Soils support Healthy people
- "Law of Return"
  - Nutrients must be recycled!
  - This is done best with mixed crops incorporating animals
  - Early work with mycorrhizal fungi
- "Pests as Professors"
  - Sir Howard saw pests as indicators
  - Imbalance in the system
  - Especially relevant to pathogens
- "Nature's Farming"
  - Howard did not coin the term "organic farming"
  - Howard drew much of his inspiration from natural systems
  - Protected soils nurtured by both plant and animal humus
  - Maintenance of large reserves of fertility

- **6 East vs. West**
  - Sir Howard saw difference between Eastern and Western Ag
  - Eastern Ag. feeds the stomach
  - Farmers of Forty Centuries (Franklin Hiram King c. 1911)
  - Western Ag. feeds the "stomach and the machine"
  - Sir Howard the Ideologue
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- Saw a "War in the Soil (c. 1946)"
- Predicted the rise of Ag. Industry
- Against use of non-chemical fertilizer

7 Walter Northbourne's "Organic Farming"
- The farm as an "organic whole"--in the philosophical sense "organic" refers to "having a complex but necessary interrelationship of parts, similar to that in living things."
- This came from Walter Northbourne's book: "Look to the Land" c.1940
- A follower of Rudolph Steiner's Biodynamic agriculture
- Sir Howard was critical of the non-scientific nature of Biodynamic ag.

8 Sir Howards Proteges
- Lady Eve Balfour
- Jerome Irving Rodale

9 Lady Eve Balfour (1899-1990)
- Farmer and Scientist
- Began the Haughley Experiment
- Wrote: The Living Soil
- Founding member of IFOAM and the Soil Association
- The Haughley Experiment
  - The first side by side comparison of OA and CA
  - Began independent of Universities
  - Long term research site 1939-1987
10 Jerome Irving Rodale (1898-1971)
- American publisher
- Founded the Rodale Press and Institute
- Publisher of "Organic Farming and Gardening"
- Died while taping The Dick Cavett show

11 The Rodale Institute
- Established in 1947
- Research Farm expanded in 1970's
- Integral role in expanding Federal funding
- Healthy Soil, Healthy Plants, Healthy People

12 Polarization 1950-1970
- Justus von Liebig (1803-1873) and others demonstrated plants take up inorganic nutrients
- "Humus is not directly available to the plant"
- 50 years of focus on NPK
- Organic methods snubbed due to focus on organic nutrients
- Organic as Carbon Chemistry rather than holism

13 Organics Reawakening
- Environmental costs
- Silent Spring Rachel Carson c. 1962
- Social Costs
- United Farm Workers 1962

14 1978-1990 Recognition
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- Organic Ag. popularized
- Mounting scientific and public support
- Development of organic standards
- Scientific Recognition
  - The Haughley Experiment
  - Long term ecological experiments
  - 1980 USDA study
- 1972 founding of IFOAM
  - International Federation of Organic Agriculture Movements
  - Versailles France
  - Continued involvement in Standards development

15 IFOAM definition of Organic
- Add definition slide here!
- Captures broader social goals of organic
- Environmental Quality
- Consumer Health
- Worker Safety
- Food System Equity

16 Organic Certification:
- Certification provides consumer assurance
- Rodale voluntary standards 1972
- Oregon Tilth, CCOF, others in mid 1970's
- Third party certification is born
- Further branding of "organic label"
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- **USDA: Organic Standards**
  - 1980: Report and Recommendation on Organic Farming
  - USDA scientist: Robert Papendick
  - Reagan takes office in 1981
  - Earl Butz statement: "Millions would starve if all farmers adopted Organic methods"

- **18 Organic NGO's**
  - The organic trade association: formerly the Organic Foods Production Association of North America

- **19 1990 - present Accommodation: Commodification**
  - 1990: Organic Foods Production Act
  - 10 years of study/debate
  - Sewage/GMO's/Irradiation

- **20 2002 USDA standards**
  - The National Organic Program (NOP)
  - Certification for Certifiers
  - Forbade GMO's, Sewage, Irradiation
  - 250,000 voters helped maintain standards

- **21 The National Organic Program**
  - NOSB: National Organic Standards Board: 15 member board
  - Farmers, processors, scientists, and NGOs
  - National standards present a two edged sword
• **22 NOSB Definition of Organic**
  • Organic agriculture is 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 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.
  • NOSB Organic
    • Focus on commodity definition
    • Some environmental ethic
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- Does not address worker safety or equity
- Does Address the food system
- NOP Outcomes
  - Standardized certification
  - Has commodified the term organic
  - Has facilitated "scaling up"

23 The Present
- NOP certifies the certifiers and they certify farmers
- To use the word organic NOP standards must be met
- Individual certifiers may be more stringent than NOP
- Once something is certified it's "organic"
- $5000 threshold.

24 Meanwhile: 20% Growth in Organics
- The organic marketplace has grown at 20-25% per year for more than 15 years
- $33 Billion in 2005
- This kind of money commands respect!
- It also attracts bigger players......

25 Challenges to Organic Agriculture
- Local vs. Organic
  - Organic certification is assurance for the consumer
  - If you know the farmer do you need a 3rd party?
- CSAs and Farmer's Markets are intimate
- Locality fits with early O vision
- New Standards
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- Transitional: State to State
- Gently Grown: IPM based standard for Tree Fruit
- Sustainably Grown: This is being pushed for right now!
- Certified Naturally Grown: Small farm organics
- Organic standards under attack

26 Organic Standards Under Attack
- In 2007 agribusiness lobbyists tried to modify the NOP
- "Limited Availability" of products cited
- Labeling depends on processing standards

27 Processing Standards
- 100 percent organic
- Organic: 95% by weight, excluding water and salt
- Made with organic: >70% organic ingredients = Made with organic
- Products with <70% organic ingredients cannot have organic in label

28 Industry Pressure Examples
- Example: Hops in beer
- Organic milk production
- "Organic" Beer?
  - Anheuser Busch lobbied to use CA hops
  - USDA listed O hops as commercially unavailable
  - Organic Hops come from NZ and Europe
  - Has resulted in high prices (200-1000% mark up)
In late 2007 AB pledged to use only organic hops in response to a massive petition

29 Organic Dairy
- Cornucopia Institute Report
- Horizon in Maryland
- Aurora in CO, TX
- Thousands of head per ranch

30 Package show's "Happy Cows"

31 Kept without adequate pasture

32 USDA found 11 willful violations (Aurora Texas)

33 No citations issued

34 Consolidation of Organic Industry
- USDA statistics show little consolidation of organic farms
- Dairy's excepted......
- However further down the food chain things are different


36 Conclusion
- Organic = value added legal term
- 3rd party certifiers allow distance between farmer and consumer
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- Development of the label took 25 years
- Consumer interpretation: "No sprays"
- Organic has become a legal definition
- Certifiers (and the USDA) have become a political force
- Interest in protecting and expanding organic markets
- Industry wants relaxed rules
- Pressure from both sides