Organic Agriculture
Albert Howard (1873-1947)

- British agricultural scientist.
- 25 years in India.
- Critical of reductionist agricultural science and specialization
- Blamed fall of past civilizations on unsustainable agriculture
- Wrote *An Agricultural Testament* (1940)
Howard on Chinese agriculture

• “The small-holdings of China, for example, are still maintaining a steady output and there is no loss of fertility after forty centuries of management.”
Howard on Chinese agriculture

- Balance between livestock and crops
- Use animal and human wastes
- Lots of legumes
- Little cultivation
Howard on Western agriculture

- Large, growing farms
- Monocultures
- Mechanized.
  - Machines consume resources, but do not contribute urine and dung for soil fertility
- Synthetic fertilizer dominates
  - Increasing crop disease
  - More processed and preserved foods
    - Questioned nutritional value
- Success judged by profit
- Too much food
  - People forced off farms into cities.
Lady Eve Balfour (1899-1990)

- Among first women to graduate from University of Reading (agriculture)
- 1939 – began long term experiment comparing conventional and organic production
- 1943 – wrote *The Living Soil*
- 1946 – founded the Soil Association

“Healthy soil, healthy plants, healthy people.”
J.I. Rodale

- Bought farm in PA to test Howard’s ideas
- Popularized term ‘organic,’ through his *Organic Gardening and Farming* magazine
- Relationship with science
  - Presented reader testimonials as research ("science for the people by the people")
  - Solid long-term research trials continue
Lady Eve Balfour (1899-1990)

Jerome Irving Rodale (1898-1971)
Organic agriculture is “a production system that is managed in accordance with the Act and regulations in this part to respond to site-specific conditions by integrating cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity.”
Organic Production Standards

- Land is certified by gov’t-approved agencies
- Farmer develops and follows organic farm plan
- Synthetic substances prohibited
  - Includes synthetic organics
- Natural substance allowed
  - Includes natural inorganics
- Maintain or increase soil organic matter content
- Separation from conventional products
  - In time – 3 year transition period
  - In space – buffer zones, barriers, separate containers, equipment cleaning etc.
- $10,000 fine for misuse of word
• U.S. organic food sales have grown between 17 and 21% each year since 1997 (total U.S. food sales over this time have grown in the range of 2-4% a year).

• Organic food sales represent approximately 3% of U.S. food sales.
  – (Organic Trade Association’s 2007 Manufacturer Survey)
Certified organic operations, 2000-2008

- Kentucky
- Hundreds in USA

Year


KDA loses certifier status
KDA regains certifier status

No organic certifier in Kentucky