Two Kinds of Science in an Industrial Society; The Case of Dairy Farming

Introduction to Environmental Anthropology
31 January 2014
Conventional Dairy: Feed and Nutrients

- Lots of feed to maintain production
- Primary energy source is CORN, alfalfa, and cottonseed
- High energy-high protein feed
- Each cow consumes ~120 lbs/day
Conventional Dairy: Care for Cows
Conventional Dairy: Machinery
Some Conventional Dairies: rBST (until 2009 in WA)

Response to rBST. The treatment period, indicated by the shaded rectangle, usually begins about 12 weeks after calving and continues for about 25 weeks.

http://www.aps.uoguelph.ca/~gking/Ag_2350/biotech.htm
Some Conventional Dairies: rBST (until 2009 in WA)
The big producer: Holstein cow

http://www.clandeboyecow/clandeboyechampion-willow-ex942-sp-lp50/
Scientific Breeding
Avoiding the economic treadmill: Specialty Products
Avoiding the economic treadmill:
Specialty Products: Raw Milk
Avoiding the economic treadmill: Specialty Products: Raw Milk

• **It will save your life**
• **It’s not worth the risk**
• **It is really expensive**
Organic Farming: Halfway back to Pre-Industrial Ecology?

- What you’re required to do
  - Cattle on pasture
  - All organic feed sources
  - No antibiotics or hormones, ever
Organic Farming: Halfway back to Pre-Industrial Ecology?

- One farmer’s solutions
  - Cows on pasture even longer than required
  - Buys organic feed for wintertime (including cereal residues)
  - Rotational grazing to economize on ecological wear
  - Whey and essential oils as preventive medicine
  - Scrupulous hygiene, lack of crowding, 2x/day milking
  - Jersey cows—higher quality, lower quantity milk
Organic Farming: Halfway back to Pre-Industrial Ecology?

• What you get
  – Higher price for the milk
  – Price supports from the cooperative
  – Technical assistance
  – Much lower costs in equipment and feed
  – Much more relaxed labor schedule
  – Cows in the herd longer
  – Release from the treadmill
Similarities between a small organic dairy and the Zapotec approach to corn: González Chapter 5,

• Selective appropriation and rejection of cosmopolitan technology
• Satisfaction rather than maximization: more Zen than Galbraith
• More income security, less income potential
• Emphasis on quality of food: Alice Waters