

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

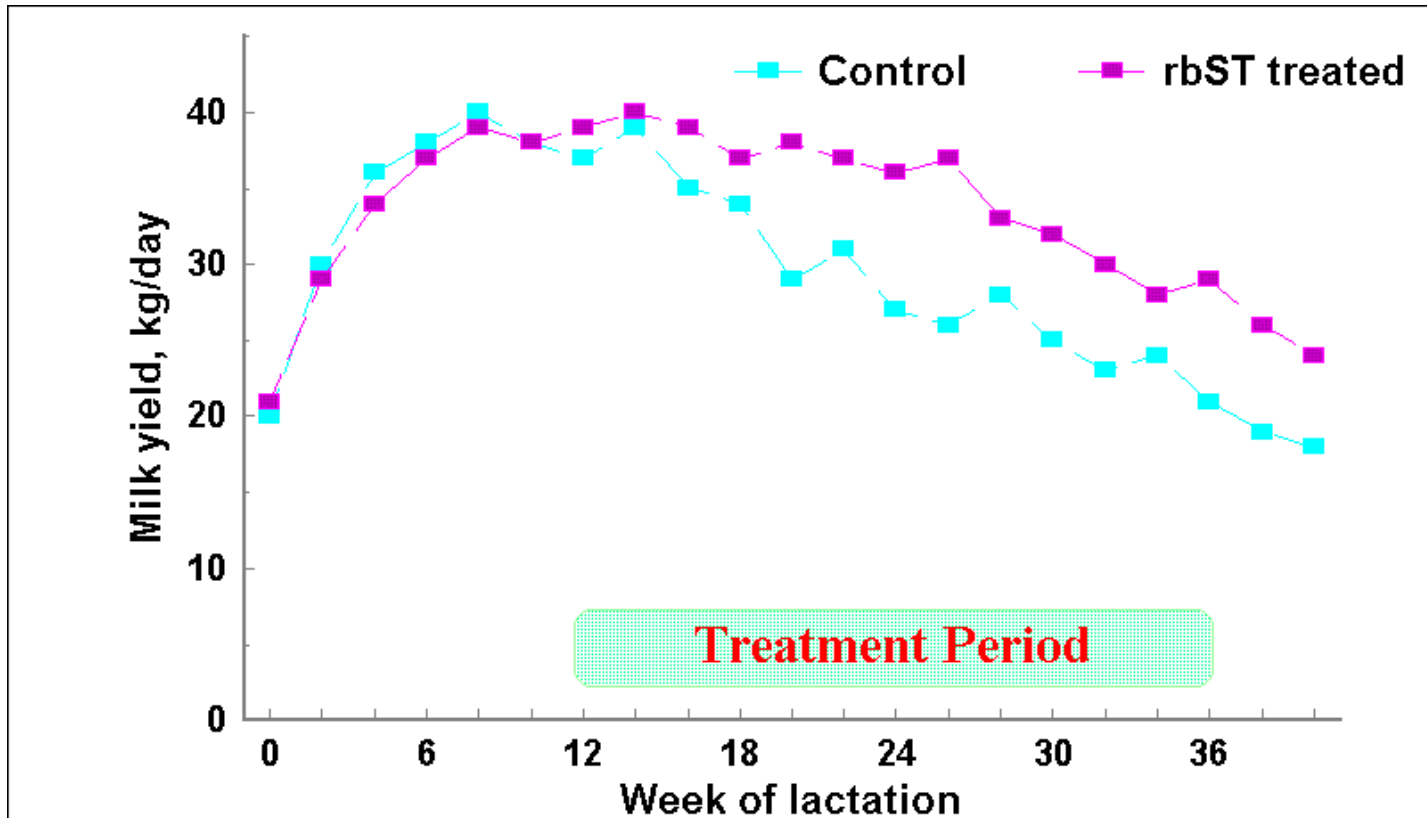
Conventional Dairy: Care for Cows



Conventional Dairy: Machinery

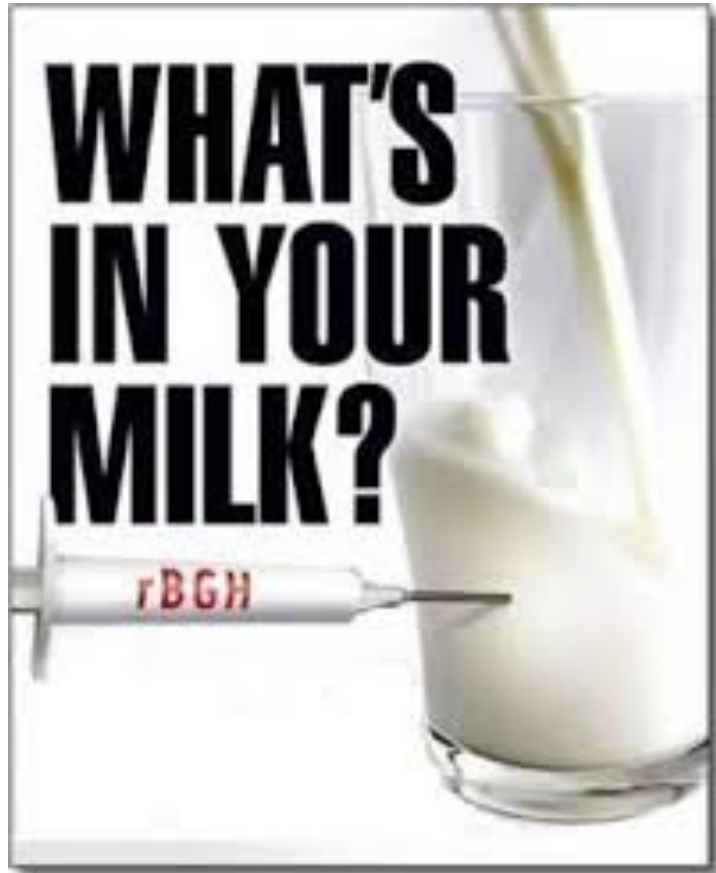


Some Conventional Dairies: rBST (until 2009 in WA)



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

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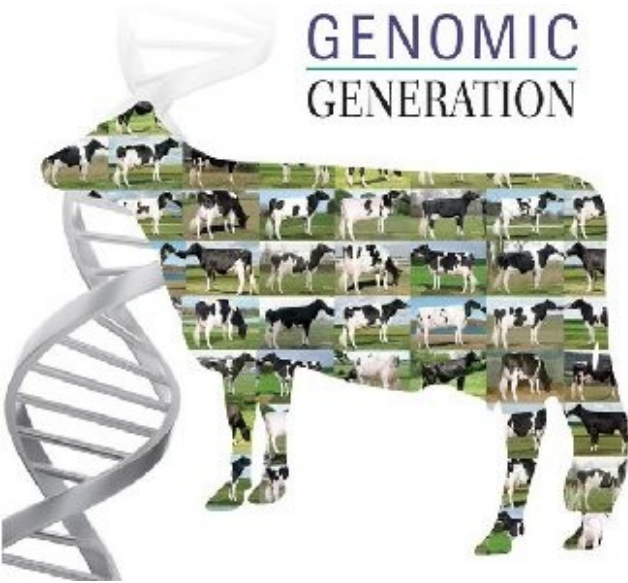
The big producer: Holstein cow



<http://www.clandeboye.co.uk/cow/clandeboye-champion-willow-ex942-sp-lp50/>

Scientific Breeding

GENOMIC
GENERATION



BULLSEMEN.COM

Inimex Genetics Ltd

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 to 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