

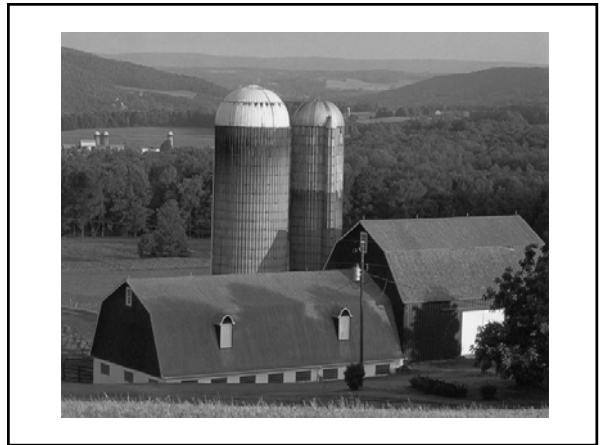
Dairy Drug Residue Problems

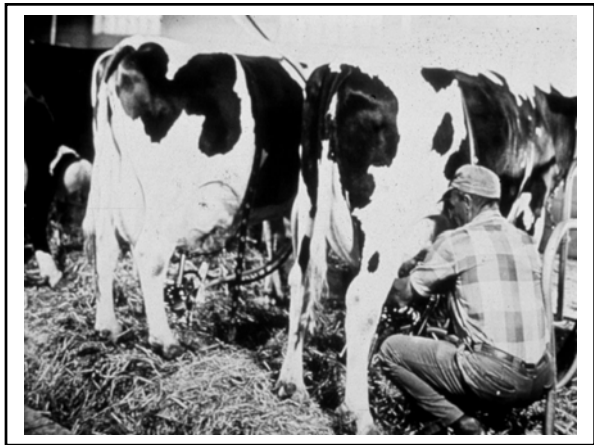
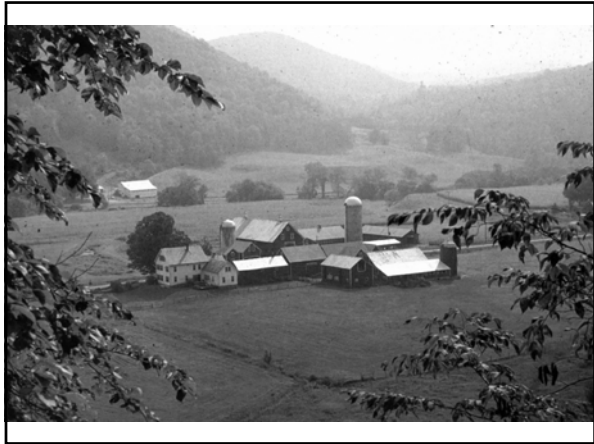
Franklyn Garry

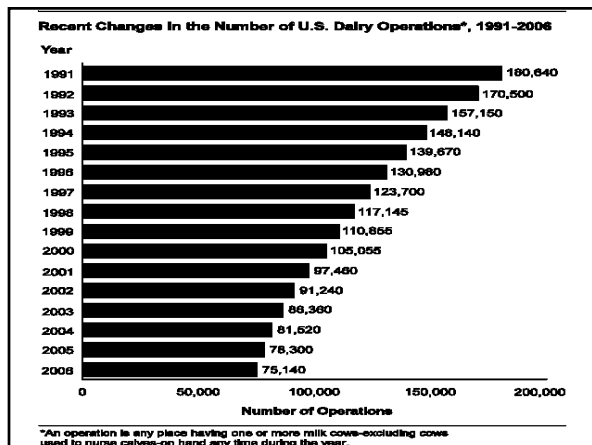
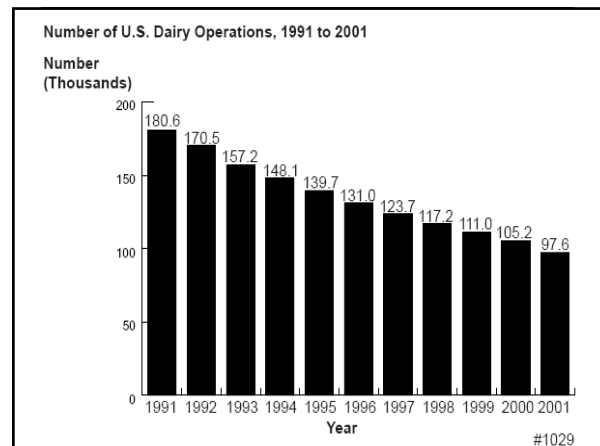
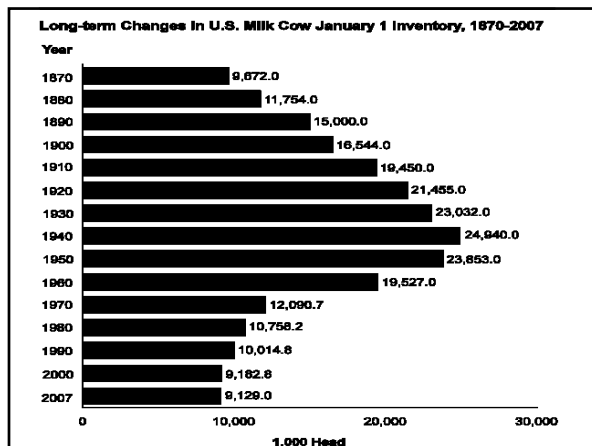


**Integrated
Livestock
Management**

**Colorado
State
University**

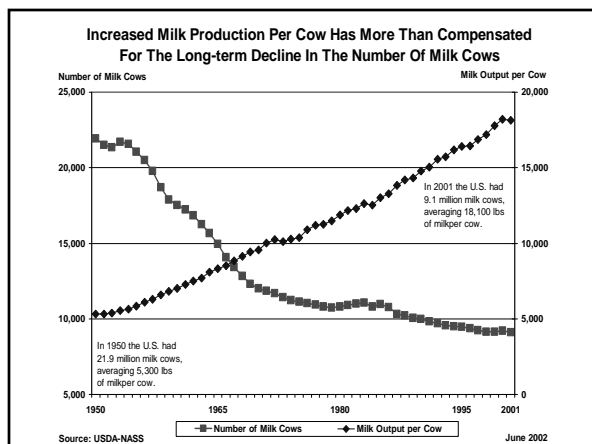






The Dairy Efficiency Story

	<u>1955</u>	<u>2005</u>
Cow #'s:	21.5 million	9.04
Milk /cow:	5,900 lbs	19,576
Tot Milk/Yr	120.1 billn lbs	176.9



- Working with Change**
- ◆ Unintended Consequences
 - ◆ Balance
 - ◆ Research and Education

Current issues... Future issues...

- ◆ Food safety, wholesomeness
- ◆ Antibiotic and chemical use
- ◆ Sustained industrialization
- ◆ Animal well-being
- ◆ Environment
- ◆ FADs and agroterrorism



Social License

Definition: The privilege of operating with minimal formalized restrictions (legislation, regulation, or market driven) based on maintaining public trust by doing what's right.

Public Trust: A belief that activities are consistent with social expectations and the values of the community and other stakeholders.

Charlie Arnot – Center for Food Integrity

Social license to operate

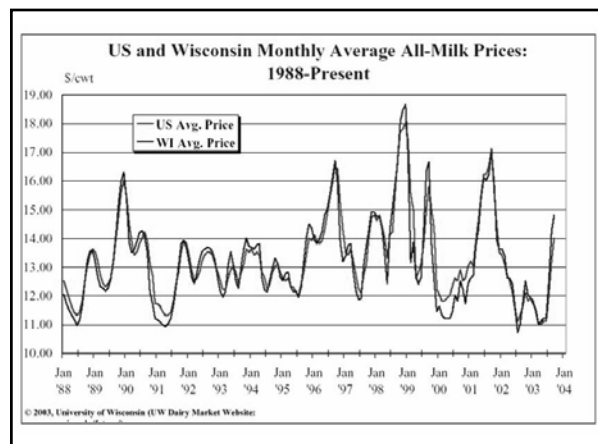
- ◆ Ethics, Values
 - ◆ Value similarity
- ◆ Competence understood
- ◆ Expectations shared
- ◆ Trust established / maintained
- ◆ Social License
- ◆ Freedom to operate
- ◆ Self regulation

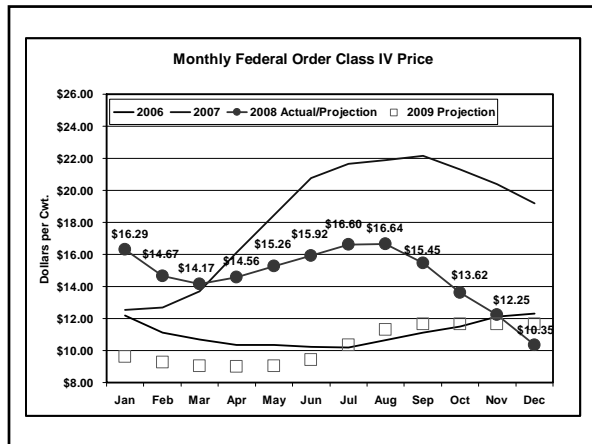
Social Control of operation

- ◆ Understanding diminished
- ◆ Values apparently not shared
- ◆ Suspicion, not trust
- ◆ Regulation, legislation
- ◆ Litigation
- ◆ Compliance

Reasons to Dairy

- ◆ Avocation
- ◆ Family
- ◆ Animals
- ◆ Business





Business focus

- ◆ Preeminent force for change
- ◆ Is that bad?
- ◆ Business models
 - ◆ Low cost business
 - ◆ Total quality management

Business focus

- ◆ Low Cost
 - ◆ How do I get costs as low as possible?
- ◆ Investment quality
 - ◆ How do I run the highest quality business to get the best return on investment?
 - ◆ Quality first – cost second

Total Quality Management

- ◆ Constancy of purpose toward improvement of product and service
- ◆ End awarding business on basis of price alone
- ◆ Institute modern methods of training for all employees
- ◆ Institute leadership
- ◆ Take action

Quality is never an accident; it is always the result of intelligent effort.

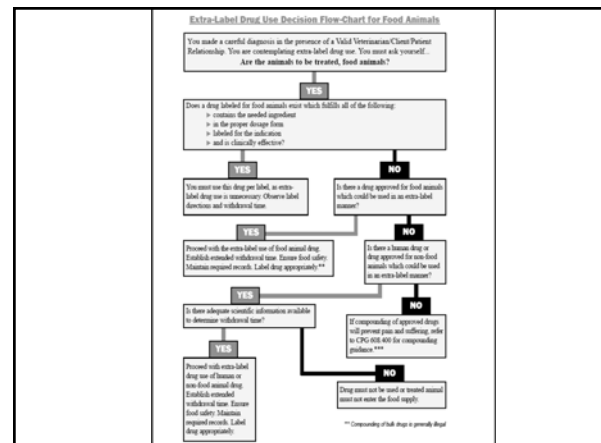
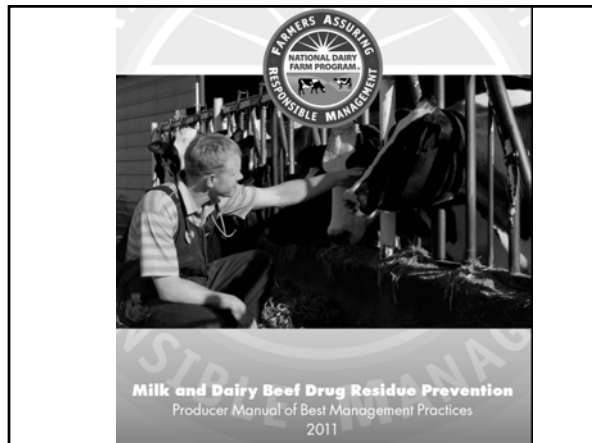
Source: John Ruskin, 1819-1900, English art critic and historian, *Seven Lamps of Architecture*

Antibiotic residues vs antibiotic resistance

- ◆ Residues associated with individual animal drug treatment error
- ◆ Resistance develops from population treatments over time

Antibiotic residues vs antibiotic resistance

- ◆ Residues represent danger in the tissue
- ◆ Resistance represents danger from infection with dangerous microbes



FDA/FSIS

- ◆ Work with USDA to monitor meat, poultry, milk for unapproved or unsafe drug residues

FSIS residue data 2008

- ◆ 34.7 million total cattle harvested
- ◆ Cull dairy cows = approx 50% of 5.6 million non-fed cattle
- ◆ Tests positive 0.0007% bob veal calves, 0.0004 % dairy culls
- ◆ Numbers low BUT–
 - ◆ Dairy culls = 67% of all cattle positives
 - ◆ Bob veal = 24% of positives
- ◆ Animals leaving dairy farms = problems
- ◆ Much higher than steers, swine, special fed veal, poultry

Dairy Drug Residues

- ◆ Only 7.7% of animals slaughtered in US are dairy
- ◆ Represent 67% of tissue residue violations

Causes of Drug residue violations

- ◆ Failure to maintain treatment records
- ◆ Failure to identify treated animals
- ◆ Failure to follow withdrawal times
- ◆ Increased dosage
- ◆ Increased length of treatment
- ◆ Administration by unapproved route

Key underlying problems that lead to residues

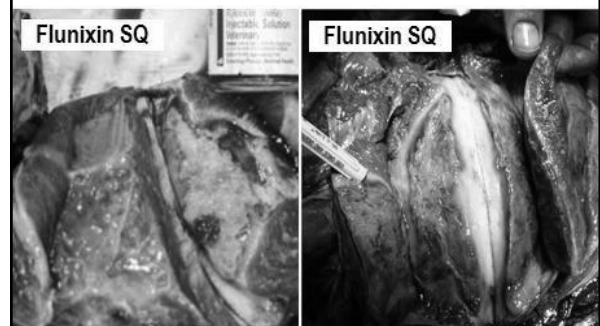
1. The person(s) in charge of treating the cows are not working under a valid veterinary/client/patient relationship.
2. Employees are not trained properly and continuously in treatment protocols and maintaining written records.
3. The producer does not review all treatment records for veterinarian-recommended withdrawal times prior to marketing milk or meat.

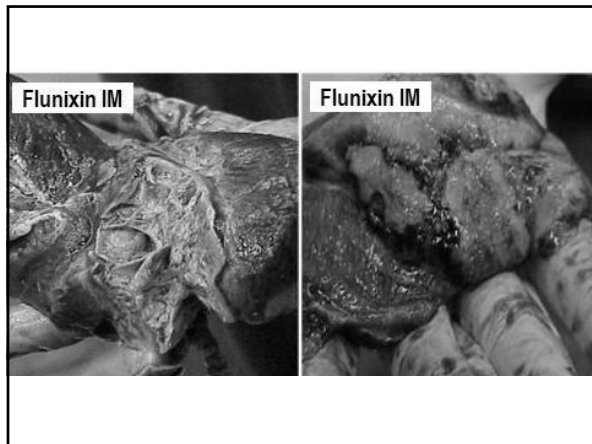
Grade A Pasteurized Milk Ordinance

- ◆ Tankers tested for specific antibiotics – beta lactams
- ◆ Many other drugs used on farms
- ◆ New target testing includes 25 different drugs
- ◆ Targets producers who have had previous slaughter tissue violations

Target testing at slaughter

- ◆ Animals apparently treated
- ◆ Tissue blemishes
- ◆ From producer with previous violation
- ◆ New tests for drugs that were previously not monitored





Recommendations

- ◆ View the problem realistically
- ◆ View the problem positively
- ◆ Work with your veterinarian
- ◆ Understand the rules
- ◆ Develop a system that prevents problems

“Whatever you are,
be a good one.”

Abraham Lincoln