

# Organic Beef: Analysis of Its Costs, Benefits, Local Supply and Demand

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# Outline:

- Background:
  - What is conventional beef?
  - What is organic beef?
- Benefits:
  - Health benefits of conventional beef
  - Issues with antibiotics and hormones
  - Additional health benefits of organic beef
- Costs:
  - Production of conventional beef vs. organic beef
- Supply:
  - Local supply
- Demand:
  - Beef demand in U.S.
  - Who buys organic
  - Albany County demand for organic beef
- Recommendations:

# Conventional Beef:

- Found in most grocery stores
- Spend most of their life on pasture or range
- After 12-18 months put into feedlots to finish on grain
- “Natural” Beef



# Organic Beef:

- Follows USDA regulations
- Organic Foods Production Act 1990
  - Prohibited to use:
    - Plastic pellets for Roughage
    - Re-feed Manure
    - Feed formulas with urea
    - No use of growth hormones or promoters
    - No use of antibiotics
    - No synthetic trace elements
    - No vaccinations
  - Must keep records
    - Feed bought and fed
    - Trace animals back to farm or ranch

# Organic Beef:

- Handled and Processed:
  - Can not come in contact with conventional beef
- USDA Organic Seal:
  - Ensures it has meet all USDA Organic Standards
- “Natural” does not mean organic!



# Conventional Beef Health Benefits:

- Health Benefits of Conventional Beef:

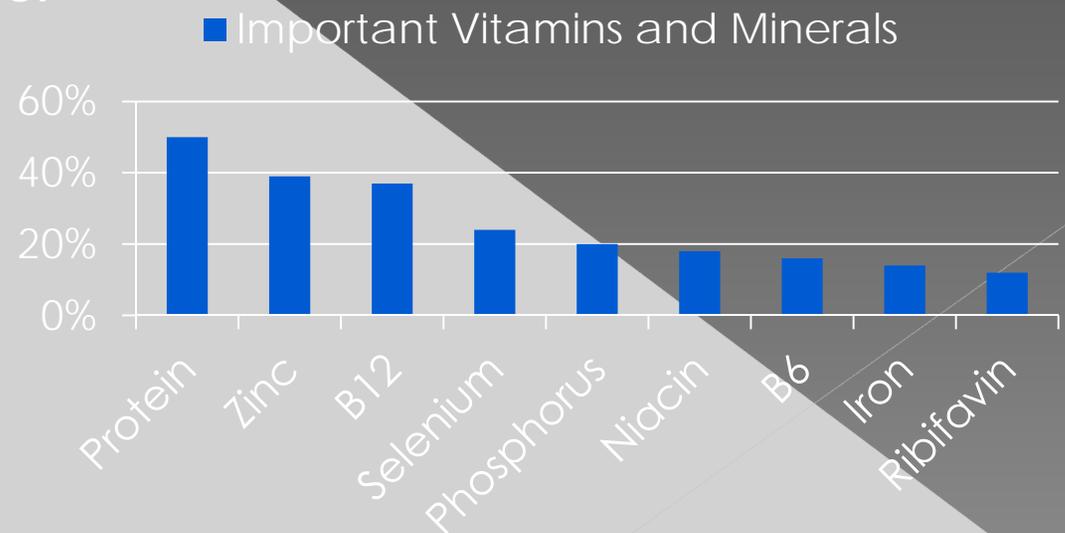
- Major Source of:

- Zinc
- Iron
- B Vitamins
- Protein
- Conjugated Linoleic Acid

- Only 1/3 of fatty acids in beef are cholesterol-raising

- Beef contains small amount of trans-fatty acids

## Important Vitamins and Minerals



# Antibiotics and Hormones:

- Hormones:
  - Approved by Food and Drug Administration
  - Low amounts
  - Improve growth
  - Treat and control diseases
  - Raise cattle on smaller amount of feed
- Concerns with Hormones:
  - Minimal risk
  - Residue low compared to amount of hormones produced in human body

# Antibiotics and Hormones:

- Antibiotics:
  - Cattle and Human use same
  - Used to treat and prevent bacterial diseases
  - Enhance growth and feed efficiency
  - Antibiotics given during high stress periods
  - Help prevent the spread of disease to other animals and humans
  - Antibiotics play major role in modern agriculture
- Concerns with Antibiotics:
  - Minimal Risk
  - “Withdrawal Period”
  - Antibiotics could potentially promote antibiotic resistant bacteria

# Organic Beef Health Benefits:

- Organic Beef:

- No additional health or safety benefits
- Prestige of buying organic

- Grassfed Beef:

- Grassfed Exclusively
- Lower in fat
- Fewer calories
- Higher in Omega-3



# Cost:

Study conducted by M.I. Fernandez and B.W. Woodward

Process:

- Conventional Steers:

- 24 conventional steers
- Vaccinated, Wormed, implanted, creep fed with lasalocid

- Organic Steers:

- 30 steers
- Wormed before weaning

- Both feeds had same amount of energy content and crude protein

- Steers were weighed at beginning of study and every 28 days

- After 235 days the study was terminated

# Costs:

- Results:

- Most calves did not make weight, but surpasses the fat requirement

- Conventional Steers:

- Associated Costs: Feed, yardage, veterinary
- If steers got sick, treated and back on feed

- Organic Steers:

- Associated Costs: Feed, yardage, labor
- If steers got sick, calves fought disease on their own or were treated and removed from organic study

- Conclusion:

- Raising conventional calves is most efficient to reach target weight and fat content. Production of conventional calves is more cost efficient.

# Local Supply:

## Conventional Beef

Name	Address	Phone	Available	Price	Weight
Crow Creek Meat Processing	2502 Ridge Road Cheyenne Wyoming	(307) 635-1150	Thanksgiving	\$2.45 per pound	~400 lbs (Hanging weight)
Butcher Block	1968 Snowy Range Road Laramie Wyoming	(307) 745-4534	Whenever (After hunting season)	\$2.25 per pound	~400 lbs (Hanging weight)
Rainbow Meats	310 S. 17 <sup>th</sup> Street Laramie Wyoming	(307) 745-4613	Whenever (After hunting season)	\$2.09 per pound	~400 lbs (Hanging weight)

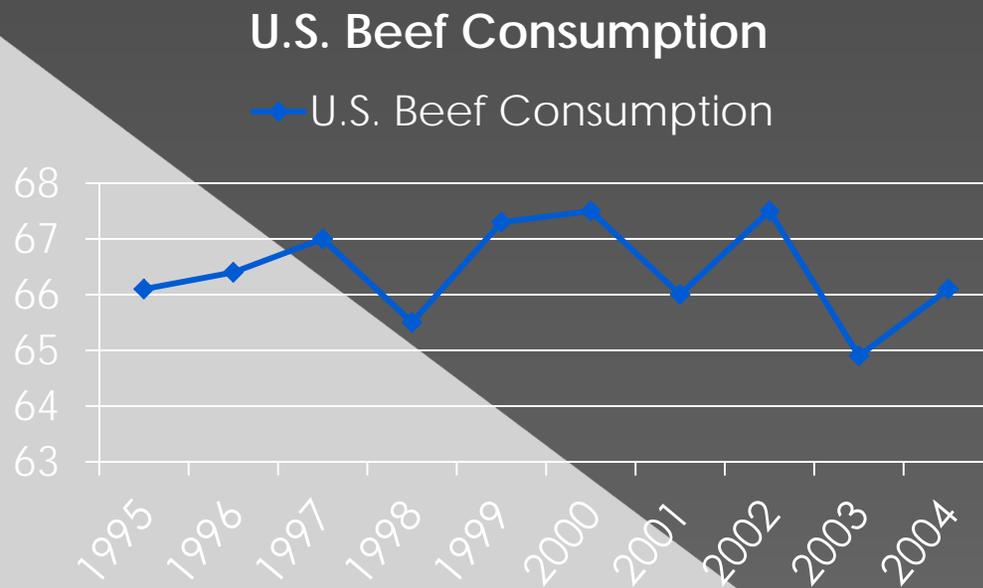
# Local Supply:

Organic Beef					
Name	Address	Phone	Available	Price	Weight
Colorado's Best Beef Company	Littleton, Colorado	(303) 449-8632	1 <sup>st</sup> of December	\$3.40 per pound + traveling costs	~350-400 lbs (Hanging weight)
Front Range Natural Beef	3744 W. Cleveland Ave. Wellington Colorado	(970) 568-9008	February	\$3.45 per pound + traveling costs	~340-400lbs (Hanging weight)
Mosher Products	P.O. Box 20549 Cheyenne Wyoming	(307) 632-1492	October 22 (Get in early limited amount)	\$3.05 per pound + traveling costs	~400 lbs (Hanging weight)

# Local Supply:

- Conventional Beef:
  - Can also purchase at Albertsons, Safeway, and Walmart
  - Average price for side of beef: \$2.26 per pound
  - Side of beef would cost: \$905
- Organic Beef:
  - Can purchase organic ground beef and specialty cuts at Albertsons
  - Average price for side of organic beef: \$2.96 per pound
  - Side of organic beef would cost: \$1186
  - Additional transportation costs

# Beef Demand in U.S.:



- Beef is largest cash receipts in U.S.
- Consumers have several options for meat products in the U.S.
- Chicken is the highest consumed meat in the U.S.

# Beef Demand in U.S.:

- Fresh Beef:
  - Ground Beef
  - Steaks
  - Stew Beef
  - Beef Dishes
  - Other Cuts
- Processed Beef:
  - Smoked Sausage
  - Corned Beef
  - Beef Jerky

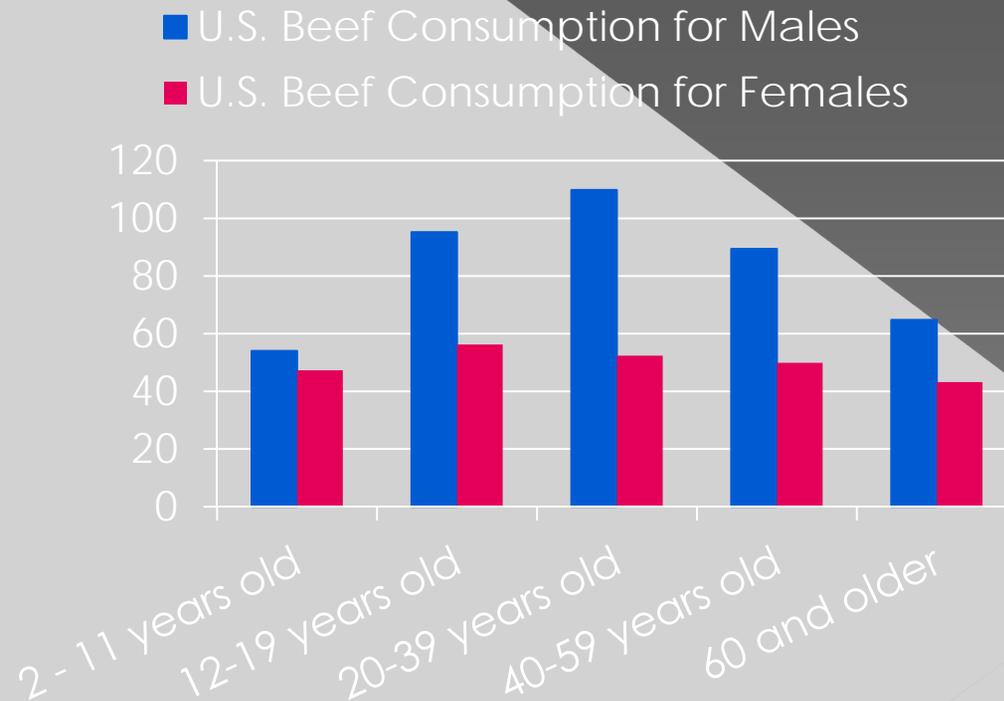


- 87% of Beef consumed is fresh
- 58 lbs of beef consumed is fresh
- Average American eats 28 lbs of ground beef each year

# Beef Demand in U.S.:

- Gender and Age Comparison:

- Males eat more beef than women
- Males 20-39 years old consume the largest amount of beef each year
- Females over 60 years consume the least amount of beef each year



# Who Buys Organic:

- Age:

- 40-65 years old
- More aware of diet, health, agriculture and environment
- Age of head of household

- Income:

- \$70,000 per year per household

- Education:

- 80% of organic consumers have attended some college
- 51% of organic consumers have attended some graduate schooling
- Education helps to understand benefits to health and environment

- Children Present in Household:

# Who Buys Organic:

- 3 Reasons why people buy organic:
  - Consumers believe there are extra health benefits
  - Consumers believe organic products taste better
  - Consumers believe they are safer
    - Do not contain antibiotics
    - Do not contain hormones

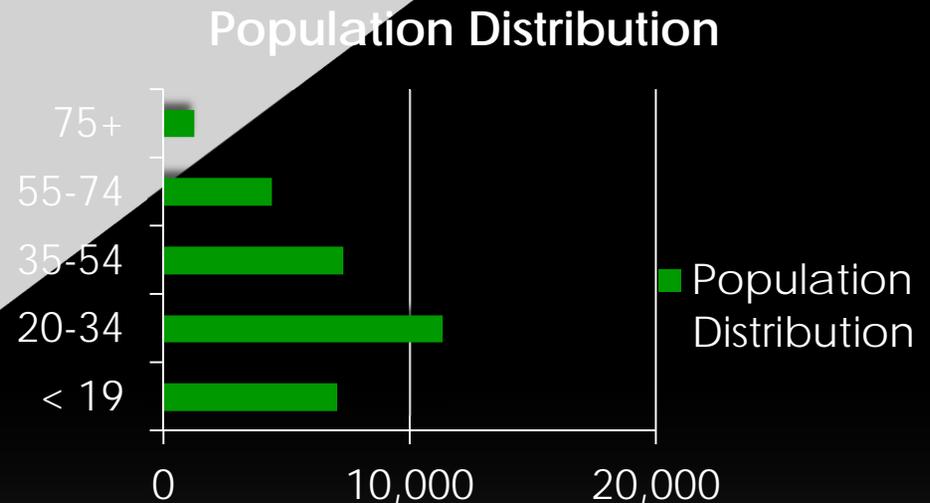
# Albany County Demand for Organic Beef:

- Albany County Profile:

- Albany County Population in 2005: 30,890
- Average income in Albany County in 2005: \$28,858
- Average household income in Albany County in 2005: \$38,517
- In Wyoming, 21.3% of household incomes are between \$50,000 and \$70,000
- Average American spends .525% of income on beef each year

# Albany County Demand for Organic Beef:

- Albany County Profile:
  - Largest group of Albany County Residents: 20-34 years old
  - Second Largest group of Albany County Residents: 35-54 years old
  - 64.9% of Households in Wyoming have children
  - 89% of Albany County residents have graduated high school
  - 38.5% of Albany County residents have attend some college



# Albany County Demand for Organic Beef:

- Organic Consumer Profile vs. Albany County Profile:

- Age:

- 8000 consumers between 40-65 years old
- 11,301 consumers between 20-39 years old, which consume largest amount of beef each year

- Income:

- Average Income: \$38,517
- University of Wyoming Employees, doctors, lawyers, entrepreneur etc who make exceptional incomes

- Education:

- Of Albany County population of 30,890, 11,893 have attended some college

Children:

- 64.9% of Household have children

# Recommendations:

## Organic Beef Recommendations:

- Additional research:
  - Health Benefits
  - Residue of antibiotics and hormones
- Reduce Production Costs:
  - Increase rate of gain
  - Decrease days of feed
  - Lower costs for consumers
  - Increase producers
  - Lower prices on organic feed

# Recommendations:

## Albany County Recommendations:

- More abundance of organic beef available
- Different organic beef cuts available
- Increase marketing for organic beef in Albany County

Questions:

