

“Beef It’s What’s For Dinner” Advocacy Service-Learning Project

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- “Ignorance is Ag’s Biggest Challenge”
 - Wes Ishmael, BEEF magazine (10-25-13)
- “Grow Consumer Trust in Beef & Beef Production”
 - 2016 - 2020 NCBA Long Range Plan
 - Develop interactive content and engaging experiences that help consumers feel more confident in how beef is raised

Goals of the Project

- Students learn while they prepare for event
- Complete important beef certifications in preparation
- Reflection from the experience and how they might use the experience in the future
- Have FUN!

Student Team Responsibilities

1. Identify topic that will be of interest to consumers (participants)
2. Create a poster about that topic that is easy to read and comprehend as participants visit their display
3. Create an interview question that will:
 - a. Give useful feedback to the student team about consumer knowledge
 - b. Allow the participant to learn from the question after being given the correct answer
4. Create a favorite beef recipe that they will prepare and give out samples to participants
 - a. Copies of recipes to take home

Student Preparation

- Required completion of:
 - ✓ Master's of Beef Advocacy Certification
 - ✓ Beef Quality Assurance Certification
 - Cow/Calf Beef Quality Assurance module



Service-Learning Project Funding

- \$300 grant from Kansas Farm Bureau Foundation
- Beef donated by Cargill, Inc. or Brookover Feed Yard, Inc.
- \$50 Walmart donation
- Brochures, banners, wheel game donated by Kansas Beef Council
- Poster printing discounts from local Western Beverage company

2009 with Trent Loos



Flat Iron Steak

Beef Jerky



2009 Student Posters

Today's American farmer feeds about 144 people worldwide.

98% of every animal is used.

Of all the water used by U.S. agriculture, only 4% is used by livestock.

On average, a beef cattle operation is home to about 40 head of cattle.

CATTLE, LLAMAS, CAMELS, DEER, AND GOATS ARE RUMINANTS, MEANING THEY HAVE FOUR-CHAMBERED STOMACHS.

Only 300,000 farmers and ranchers stand between us and starvation.

American farmers spend 0% of their income on food, compared with 18% elsewhere in the world.

At least 80% to 85% of the foodstuffs eaten by cattle throughout their lifetime comes from sources humans cannot digest or do not eat.

Approximately 1.1

hundreds of thousands of acres



BEEF

It's What's For TIGERS

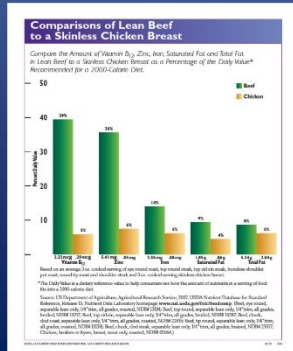
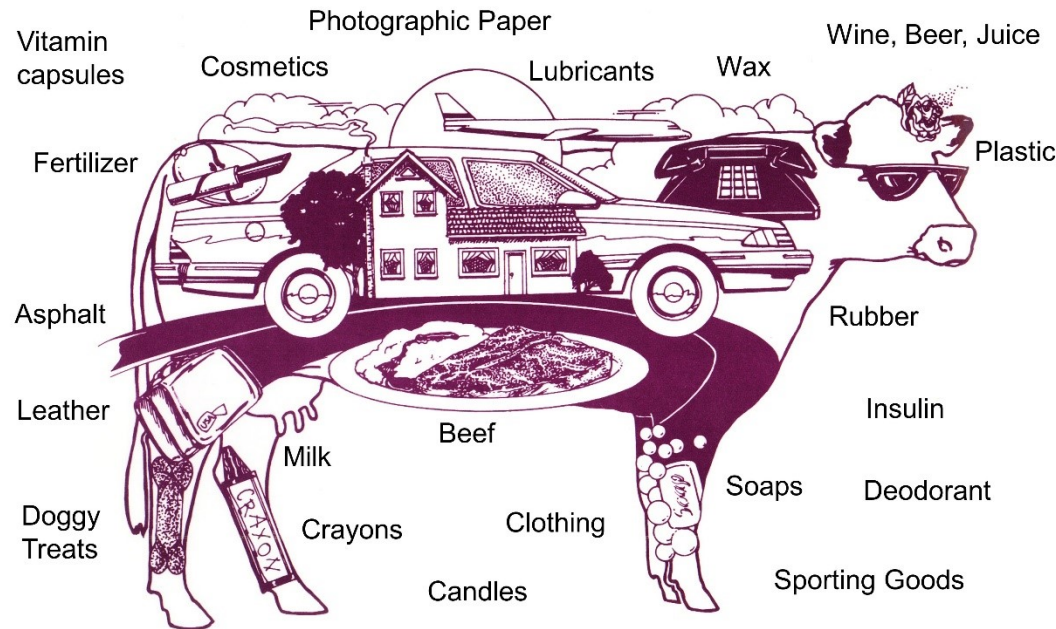
Nature's Best Tasting Multivitamin



- ✓ Beef producers alone have invested more than \$27 million in beef safety research since 1993
 - ✓ Beef industry spends \$350 million annually on safeguards
- ✓ Comparison of Estrogen Levels (in nanograms)
 - ✓ 3 oz non-implanted beef = 1.3
 - ✓ 3 oz implanted beef = 1.9
 - ✓ Milk (8 oz) = 567.4
 - ✓ Naturally produced in the male body = 136,000
 - ✓ Naturally produced in a non-pregnant female = 480,000
- ✓ Comparison of phytoestrogen levels (nanograms/100g)
 - ✓ Milk = 1.2
 - ✓ Corn = 9
 - ✓ Green Beans = 105
 - ✓ Tofu = 27150
 - ✓ Soybeans = 103,920
 - ✓ Flax = 379380
 - ✓ Lean roast beef = 7

- ✓ Contains 50% heart healthy mono-unsaturated fatty acids as in olive oil
 - ✓ Raises good cholesterol and lowers bad cholesterol
- ✓ About 40% of fat in beef is saturated
 - ✓ 1/3 of saturated fat = stearic acid or neutral fat (no effect on cholesterol)

Cattle: They're Everywhere!!



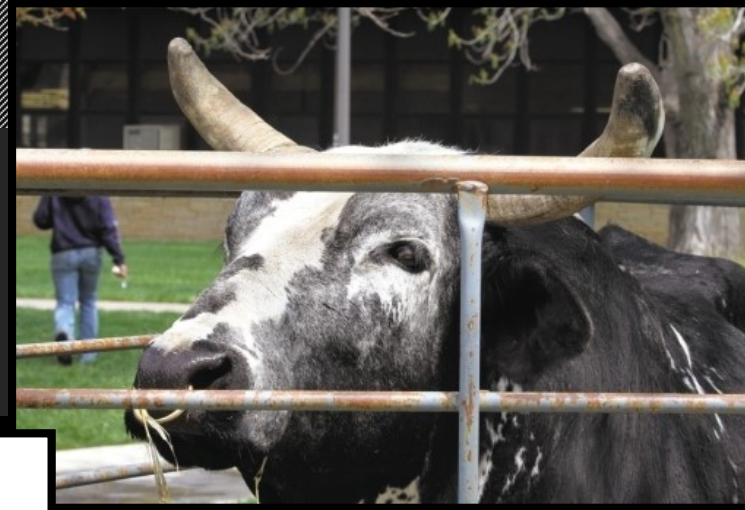
2010 Blogger Glen Brunkow



2011 KFRM Radio Host Kyle Bauer



2011 Beef It's What's for Dinner



Donate \$1 to help feed hungry children in Kansas and guess the weight and age of Blizzard- winners will receive a gift basket



Youtube Videos Created Each Year

- <https://www.youtube.com/watch?v=yulxzQFjlt0&feature=plcp>

Dillon's Grocery Promotion - Flat Iron samples



Animal Welfare

Animal Handling

With proper training, we are capable of processing the cattle without touching them or raising our voices, which results in calmer, easier handling animals.



Ranch Cattle Handling & Corral Systems

"I think using animals for food is an ethical thing to do, but we've got to do it right. We've got to give them a painless death. We owe the animal respect."



-Dr. Temple Grandin
Colorado State University

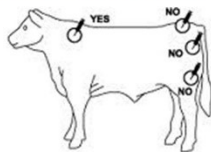
Nutrition

The ultimate goal of beef nutrition is to produce efficient, healthy animals.



Beef Quality Assurance

A safe, wholesome and healthy beef supply.



Proper animal care ensures a quality product every time



Beef Check off



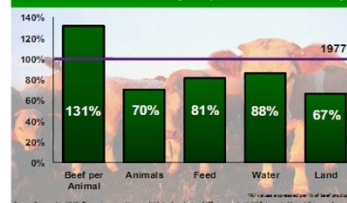
For every beef animal marketed, \$1 goes to the beef Check off to promote beef and educate producers and consumers.

Cattle Farmers and Ranchers: America's Everyday Environmentalists

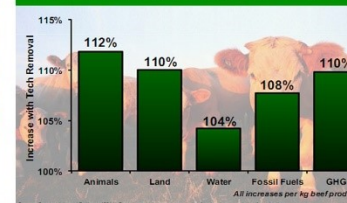


Grazing cattle reduce the risk of wildfires by decreasing flammable material on the land

Environmental Impact of U.S. Beef Production has been Reduced by Improved Productivity



Removing Technology from Beef Production Increases Resource Use and GHG Emissions



According to Dr. Jude Capper, ranchers only have access to finite resources. So they must efficiently use them in order to produce the maximum amount of beef possible. Her research shows how beef has reduced its carbon footprint and how technology has made that possible.



Last year 166,000 acres of land mostly belonging to working farms and ranches were restored to benefit the bald eagle and the grizzly bear

Grazing animals can minimize the invasion of non-native plant species. Picture shows sheep grazing to control leafy spurge in pasture land. (right, leafy spurge invasion)



Critics claim it can take up to 2500 gallons of water to produce one pound of beef. On a more realistic scale it takes somewhere around 440 gallons per pound of beef produced.



98% of farms are family farms - the avg. cattle herd size in the U.S. is 40 head.

Farmers and ranchers increased wetlands by 263,000 acres from 1997-2003.

If 1955 technology was used to produce the amount of beef raised today, 165 million more acres of land would be needed - that's about the size of Texas!



Supreme Recyclers

- Human Food
- Orange Juice
- Beer
- Cotton
- Cookies
- Sugar

- Products Consumed/Recycled by Cattle
- Citrus Pulp
- Malt Sprouts
- Cottonseed Hulls
- Reject cookie material
- Sugarcane bagasse (leftover plant material)



And hundreds of other materials that would otherwise go to LANDFILLS or BURNED

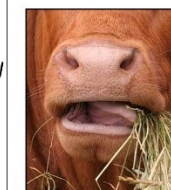


85% of grazing lands are unsuitable for producing crops, therefore grazing animals more than double the area that can be used to produce food.



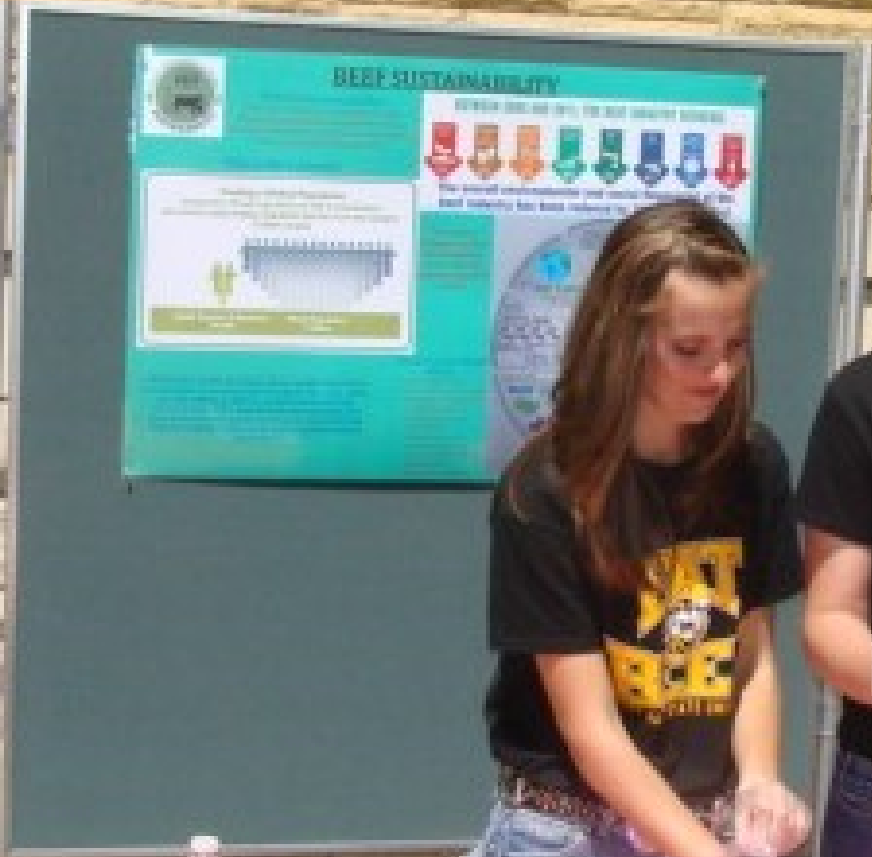
The U.S. has 16 million more acres of forestland than in 1920.

Methane from all sources in the U.S. account for 8% of total greenhouse gas emissions (CO2-85%, fuel combustion-80% of total emissions). "Burping cows" accounts for about 1.8% of annual U.S. emissions. Cattle numbers have been decreasing since 1975 (132 million to 94 million), decreasing methane emissions.



2013 - Debbie Lyons-Blythe, Mary Ann Kniebel and Barb Downey



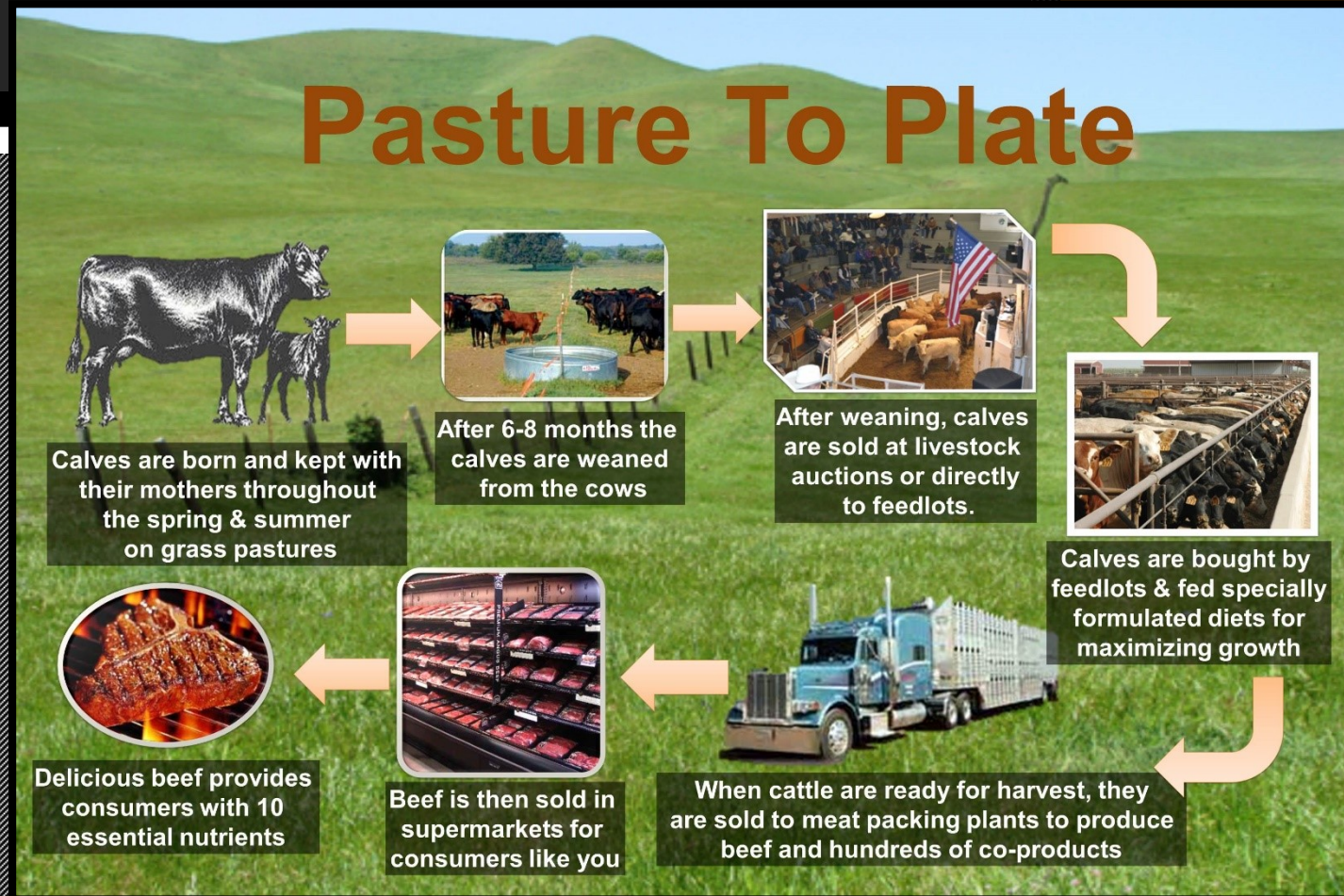


The JMSU Beef Production class would like to thank the following for their support of this project:

2014 added survey questions

What percentage of a steer's life is spent on grass?

	<u># of responses</u>
a. Less than 50%	30
b. 50%	35
c. Greater than 50%	69



2015 added survey questions

Do you know the difference between grain and grass fed beef?

	<u># of responses</u>
a. No	148
b. Yes	91
c. I am not sure	17
d. I know only a few differences	13

De-BUNKING Feed Yard Myths

Myth- Cattle are producing large amounts of damaging methane gas to the environment.

Truth - 70% of methane emissions actually come from human-related activities, while cattle only produce less than 3%.

Myth - Cattle spend their entire life in a feed yard eating grain.

Truth - Cattle are raised on farms where they spend 75% of their life on grass. They only spend 4-6 months in the feed yard. Prior to the feed yard cattle are out on grass.

Myth - Beef cattle in feed yards are confined in crowded pens.

Truth - On average animals get 200-300 sq. ft. per head and 9-12 sq. ft. of space at the bunk.



Myth - Feed yards force feed cattle unnatural corn diets.

Truth - Corn is one part of a well balanced diet created by animal nutritionist. When given the choice while grazing cattle will readily choose corn over available forage.

Myth - Cattle are owned by big corporations and ruin the economy.

Truth - Corporate feed yards typically source cattle from hundreds of ranches, which thereby supports their local economies.

Myth - Cattle in the feed yards are pumped full of hormones that are harmful to people and the environment.

Truth - 1 lb. of beef from an animal implanted with estradiol contains 15,000 times less estradiol than the amount of estrogen produced daily by the average male. The use of hormones means more beef production from fewer cows and less resources. In fact, hormone use reduces the land required to produce a pound of beef by 67%.

Beef Recipe Samples

Flat Iron Steak

Tri-tip Steak

Beef Jerky

Velveeta Queso Dip

Smokehouse Brisket

Wonton Tacos

Survey Summary 2009-2015

(n=106; median=14; range 10-20)

- 99.9% felt this project was a good way to provide information about beef production to the public
- 99.8% recommended future classes to repeat the project
- 88.7% felt they learned information about beef and/or cattle while doing the project

Participant Summary 2009-2011 (n=576)

- 94.7% agreed their knowledge increased about beef production
- 94.0% would be more likely to eat beef in the future because of what they learned or tasted at the event

Selected Comments 2012-2015

- Like the interaction along the way with lots of facts
- Students were knowledgeable and great
- Long wait but worth it!
- Super informative, especially about hormones in beef
- Great event, learned a lot about beef production