

Beyond the Beef - Background Information

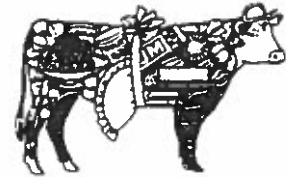
Beef in Your Meal

You may normally think of beef as a hamburger, steak or delicious roast for a satisfying meal. But there are other edible parts besides the protein-packed muscle. The variety meats, such as liver and heart, are just two of the many tasty alternatives that are used in gourmet dishes.

There are also edible by-products that are not quite so obvious. Do you know that gelatins in products such as ice cream and yogurt are made from the hooves, horns, hide and bones of the cow?

Cattle provide a portion of the ingredients in manufactured products such as chewing gum. People depend on cattle for ingredients to make food products such as these:

sausage	marshmallows
candies	mayonnaise
chewing gum	oleo shortening
clarification agents for juice, wine and beer	pate
consume	sausage casings
cookies	yogurt
gelatin in salads/desserts	variety meats
head cheese	liver, heart
ice cream	tongue, kidneys



Beef at Work, Play and in the Home

"What do cows have to do with me. I don't have one in my backyard!" This might be your first reaction to the statement above. However, items manufactured from beef by-products are part of our daily environment.

The soap you washed with this morning; the baseball equipment in the closet; or even the paint of the walls of your home – all of these contain a beef by-product. The following contain one or more beef by-products:

bone china	leather sporting goods
bonemeal biscuits	luggage
boots and shoes	paint
candles	pet foods
cosmetics	photographic film
crayons	plastics
deodorants	shampoo/cream rinses
detergents	shaving cream
doggie chews	soaps
fabric softeners	textiles
floor wax	toothpaste
glue	upholstery
insecticides	violin strings



Beyond the Beef - Background InformationBeef in the Pharmacy

The medical world also relies on this resource for the pharmaceutical wonders it produces and uses. This is because cattle have great similarities in organic chemical structure to humans. Our bodies will easily accept a medication or treatment made with these animal components. Some products are synthesized. However, many are still made more economically from cattle.

Insulin - treatment of diabetes

Heparin - prolongs the time needed for blood to clot

Corticotrophin - used in the treatment of allergies, rheumatoid arthritis, rheumatic fever, and respiratory diseases

Thyrotropin - stimulates the thyroid gland

Parathyroid hormone - used to treat parathyroid deficiencies

Thrombin - promotes coagulation during surgery

Glucagon - treats hypoglycemia (low blood sugar)

Sodium levothyroxine - thyroid replacement therapy

Fibrinolysin - treatment of blood clots within the cardiovascular system

Pancreatin - treatment of infants with celiac disease (gluten intolerance) and related pancreatic deficiencies

Thyroid - treats myxedema (metabolic disease caused by deficient action of the thyroid gland) in adults and cretinism (deformity and mental retardation in children)

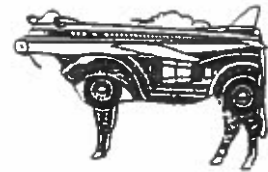
Parathyroid hormone - used to treat parathyroid deficiencies

Beef on the Road

Tires have stearic acid that makes the rubber hold its shape under continuous surface friction. Even the asphalt on our roadways has a binding agent from fat. Some other unusual but necessary products are:

asphalt
rubber tires
textiles for upholstery

car polishes and waxes
hydraulic brake fluid

Beef in Industry

Beef by-products are used in all sorts of mechanical items. Chemical manufacturers use numerous fatty acids from inedible beef fats and proteins for all sorts of lubricants and fluids.

animal feed	industrial cleaners
cement blocks	lubricants
explosives	molds for plastics
fertilizers	printing ink
high gloss for magazines	whitener for paper

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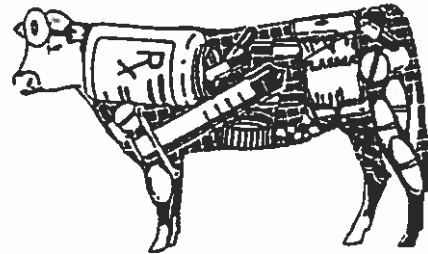
Activity

1. Brainstorm with students what products they think come from beef cattle.
2. Have students read over the Background Information on some of the products made from beef cattle.
3. Ask how many of the items are part of their everyday lives?
4. Using the Activity Sheet, have students complete an investigation of products they have at home that come from beef cattle.

Extensions

1. Have students list (in a journal) the number of products they encounter throughout a whole day that come from beef cattle. Discuss in class the next day.
2. Find the nearest beef cattle producer in your state. Go on a visit to the farm/ranch or invite the producer to speak to the class about raising beef.

Adapted from The American National Cattlewomen, Inc.



Beyond the Beef - Activity Sheet

“What do beef cattle have to do with me? I don’t have any in my backyard!”
Virtually the entire beef animal (99%) is used for something, but only 41% of it is used as meat. The rest of the steer is used to provide products we use daily.

Using the Beyond the Beef Background Information Sheet, see how many things you can find in your home that come from a beef animal. List products below.

Beef in Your Meal

Beef in Industry / On-the-Road

Beef at Work, Play, and Home

Beef in the Pharmacy
