



Cattle By-Products

For as long as animals have been used as a food source by humans, their by-products have been just as important. Cattle provide numerous by-products we use daily. Parts of the cow other than beef are used in the manufacturing process for many of the industrial, household and health products. Listed below are some of the ways that cattle really do touch us daily.

Cattle by-products allow 99% of every dairy cow to be utilized!

To learn more about cattle by-products go to www.dairymax.org

HOUSEHOLD GOODS

Household items manufactured with inedible cattle by-products are a daily part of life. Look to see how many of these cattle by-products you use nearly every day!

From Fats/Fatty Acids and Protein Meals

Candles	Linoleum	Shoe Cream
Cellophane	Mouthwash	Shaving Cream
Ceramics	Detergents	Soaps
Cosmetics	Synthetic Rubber	Pet Foods
Crayons	Floor Wax	Deodorants
Perfumes	Toothpaste	Insecticides
Paints	Paper	Insulation Plastics

From Gelatin

Photographic Film

From Hair

Paint Brushes

From Collagen-based Adhesives

Bandages	Emery Boards
Wallpaper	Glues
Sheetrock	

From the Hide

Sporting Goods	Clothing
Luggage	Gloves & Belts
Boots & Shoes	Purses & Wallets

PHARMACEUTICAL PRODUCTS

From the Pancreas

Insulin – for treating diabetes and high blood sugar
Chymotrypsin – promotes healing of burns and wounds
Pancreatin – aids in digestion of food
Glucagon – treats hypoglycemia or low blood sugar

From the Liver

Heparin – anti-coagulant
Liver Extract – treatment of anemia
Vitamin B-12 – prevention of B-complex deficiencies

From the Bone

Bone Marrow – treatment of blood disorders
Soft Cartilage – plastic surgery component
Bone Meal – calcium and phosphorous source

From the Pituitary Gland

Prolactin – promotes lactation
Pressor Hormone – regulates blood pressure
Vasopressin – controls intestinal and renal functions
ACTH – treatment of arthritis and allergies

From the Blood

Blood Factors – for treating hemophilia, killing viruses and making anti-rejection drugs
Iron – treatment of anemia
Thrombin – coagulant which helps blood clot

TRAVEL-RELATED PRODUCTS

Tires contain stearic acid which makes rubber hold its shape under continuous surface friction

Antifreeze contains glycerol derived from fatty acids to keep engines running cool

Asphalt has a binding agent from fat

Glue from beef protein is used in car bodies

Numerous lubricants and fluids contain fatty acids from inedible beef fats and proteins

Steel ball bearings contain bone charcoal

Other products include hydraulic brake fluid, airplane lubricants, runway foam, car polishes and waxes and textiles for car upholstery

Milk By-Products

Dairy products are essential to strong, healthy bones. Eating three servings of milk, cheese or yogurt daily is a wise choice for people of all ages. Research shows that most of us eat only half of the recommended daily servings of dairy.



BUTTER

Butter is made exclusively from milk or cream, or both, with or without common salt and with or without additional coloring matter. **Butter also contains protein, calcium and vitamins A, D and E.**

Butter Varieties include:

- » Traditional Butter
- » Salted/Unsalted Butter
- » Whipped
- » Light Butter
- » Cultured Butter
- » Anhydrous Butter
- » Butter Oil
- » Butter Powder



ICE CREAM

Ice cream has a great deal more nutritional value than its dessert counterparts, such as cake, pie or candy. The primary nutrients in ice cream are calcium, riboflavin (vitamin B2) and protein.

Ice Cream Varieties Include:

- » Frozen Custard
- » French Ice Cream
- » French Custard Ice Cream
- » Reduced Fat Ice Cream
- » Lowfat Ice Cream
- » Fat Free Ice Cream
- » Sherbet



WHEY

Whey is the liquid part of milk that remains after the manufacturing of cheese. Whey can be transformed into a dry product by different techniques.

Today's whey ingredients go into numerous products ranging from dairy foods and nutritional supplements to processed meats.

They serve as excellent emulsifiers, whipping agents and water-binders, and also aid in gelation, thickening and browning.

The two major categories of whey in the United States are sweet whey and acid whey.

- » Sweet whey results from the manufacturing of hard cheeses such as cheddar and mozzarella and has a pH greater than 5.6.
- » Acid whey, on the other hand, is produced during cottage cheese and ricotta manufacturing processes and has a higher mineral content and a pH of less than 5.1.

CHEESE



Cheese, a concentrated dairy food made from milk, is defined as the fresh or mature product obtained by draining the whey (moisture of original milk) after coagulation of casein, the major milk protein. **Cheese can be used in almost every food product.** Different ingredients and processes used during the making and aging of cheese result in a wide variety of cheeses, each with its own distinct texture and flavor.

There are more than 200 varieties of cheese produced in the U.S. and over 1,400 varieties in the world.

Cheeses are categorized in several ways:

- » Natural
- » Process
- » Unripened
- » Ripened
- » Soft
- » Hard

