Welcome to World Dairy Expo®

Introduction Packet

This packet includes information about World Dairy Expo, dairy cattle, milking equipment, milk nutrition, the diet of cattle and judging standards.

Getting to Know World Dairy Expo

World Dairy Expo is the international gathering place for the Dairy Industry; no other event in the world compares. It offers the most elite combination of dairy cattle and commercial exhibits in the world.

Madison has been home to World Dairy Expo since 1967, making **2014 our 48th Anniversary**. World Dairy Expo is governed by a Board of Directors, which represent interests from the dairy industry, government, cooperatives and private companies who have joined together to further promote the dairy industry.

2013 Statistics

More than **70,900 dairy industry enthusiasts attended** this five-day event, with **2,905 being from 92 different foreign countries**. The top five international country visitors were from Canada, Japan, Mexico, China and Germany.

During World Dairy Expo, the leading North American dairy cattle compete for top honors in seven breed shows.

Breed of Dairy Cattle Exhibited in 2013	Number per Breed Shown
Holstein	**617**
Jersey	**371**
Brown Swiss	**361**
Red & White	253
Ayrshire	229
Guernsey	203
Milking Shorthorn	191
Total	**2,225**

1,616 Dairy Cattle Exhibitors from 36 states and 7 Canadian provinces participated in 2013.

Only two cows left the show as the ultimate winners:

Supreme Champion Cow:	Bonaccueil Maya Goldwyn	(Holstein)
Supreme Champion Cow of the Junior Show:	Willdina Jade Bee	(Jersey)

The Supreme Champion is selected from among the best of the seven breeds to reign as what many consider the best cow in North America.

Cows are often called **cattle**. A **cow** is a mature female of the bovine animals. The adult male is called a **bull**. A baby is called a **calf**.

Cattle are farm animals with thick skin and hoofed feet. Cattle were **domesticated** (tamed from wild animals) thousands of years ago. They are farmed for their milk, meat, hide (leather), and many other products, like gelatin, glue, and soap. In some parts of the world, cattle are still used to pull plows and carts.

Anatomy: Cattle vary in color from white, black, brown to tan. Milk is produced in the female's udder. Cattle use their long tail to keep insects off their back. Some cattle have horns others do not.

The cow has four teats, which is an alternative word for nipple. In cattle, it is the protrusion from the udder through which milk is discharged.

Diet: Cattle are **herbivores** (plant-eaters) that graze on grass and eat grains and hay. They are **ruminants**, animals that have a four digestive compartment stomach. Cattle swallow their food without chewing it very much. They later **regurgitate** their **cud**, chew it well and swallowing it again.

Dairy cows did not always produce as much milk as, or look like, the cows we see today. Long ago, cows were of many shapes and sizes. Some had long, shaggy hair; others had short smooth coats; some cows had straight backs; and some had humps like a buffalo. They roamed wild and early humans hunted them.

Later people learned that when they caught cows, they could train them to be very gentle. They could milk them for food and eat them for meat. They could also raise the calves so they would not always need to hunt and catch more wild ones. This process of taming animals over many generations is called **domestication**.

Milk & Cow Facts

- Each state in the United States has milking cows.
- There are approximately:

9,209,600 (9.209 million)	Milking cows in the United States
318,803, 513 (318.8 million)	People in the United States
7,189,762,134 (7.189 billion)	People in the World
51,481	Dairy farms in the United States (2012 statistic)
115-135 cows	In the average dairy herd in the United States
97%	Family owned American dairy farms

Top Five Milk Cow (average) States			Corresponding People/State Population	
California	1,780,000	(1.78 million)	38,332,521	(38 million)
Wisconsin	1,270,000	(1.27 million)	5,742,713	(5.7 million)
New York	615,000		19,651,127	(19.65 million)
Idaho	565,000		1,612,136	(1.61 million)
Pennsylvania	531,000		12,773,801	(12.77 million)

Bottom Five Milk Cow (average) States		Corresponding People/State Population	
Wyoming	6,000	582,658	
Delaware	4,700	925,749	
Hawaii	2,200	1,404,054	(1.4 million)
Rhode Island	900	1,051,511	(1 million)
Alaska	300	735,132	

Percentage of milk production in the United States goes toward exported dairy goods	**15%**
Pounds of milk produced in the United States each year (2013)	**201,218 million**
Gallons of milk produced by United States dairy farms	**23 billion**
Average amount of milk produced each day by one cow	**7-8 gallons**
A single Wisconsin cow claimed the record production in a year (almost 8,000 gallons)	**72,170 lbs.**
One pound of butter represents the amount of cream in approximately 10.5-11 quarts of milk	

Ice Cream

- It takes 12 pounds of milk or 1.5 gallons of milk to produce 1 gallon of ice cream.
- Three gallons of milk will make one gallon of ice cream.
- Nearly 9% of all the milk produced by U.S. dairy farmers is used to produce ice cream.
- Vanilla remains the most popular flavor among American consumers, followed by chocolate, cookies and cream, strawberry, and chocolate chip mint.

Cheese

- One pound of cheese contains 10 pounds of milk.
- The average American eats more than 33 pounds of cheese per year.
- Since 1910, Wisconsin has been the leader in cheese production.
- Wisconsin produced 14% of all milk and 26% of all cheese in the United States in 2013.
- Mozzarella is the most produced cheese in the United States followed by Cheddar Cheese.
- According to the USDA, Wisconsin continues to produce the most cheese followed by 2) California, 3) Idaho, 4) New York and 5) New Mexico.
- More than one-third of all milk produced each year in the United States is used to manufacture cheese.

How much does a gallon of milk weigh?
A gallon of milk weighs about 8.6 pounds. One quart of milk weighs 2.15 pounds.

- A cow needs to drink 2 gallons of water for each gallon of milk produced.
- There are approximately 340-350 "squirts" in a gallon of milk. In addition, milking machines were invented in 1865!
- It usually takes about 3-6 minutes for a cow to be milked in a milking parlor.
- Milk is 87.7% water, 3.7% milk fat and 8.6% skim solids. Solids include fat, protein, carbohydrates, vitamins and minerals.
- To pasteurize milk, it must be heated to more than 160 degrees Fahrenheit for 15 seconds to kill most bacteria, which keeps it from spoiling.
- Milk is pumped through extremely tiny holes to make it homogenized. This process breaks the milk fat into tiny particles that remain suspended in the milk so they do not rise to the top as cream.

Milk Nutrition
An 8-ounce glass of milk provides a large percentage of your recommended daily allowance of important vitamins and minerals.

Calcium	30%	Builds strong bones and regulates muscle contractions
Vitamin D	25%	Promotes the absorption of calcium and optimizes bone mineralization
Riboflavin	24%	Helps convert food into energy
Phosphorus	20%	Helps strengthen bones and generates energy in a body's cells
Protein	16%	Maintains and repairs muscles
Vitamin B-12	13%	Helps build red blood cells
Potassium	11%	Helps keep your brain, nerves, heart, and muscles functioning normally
Niacin	10%	Improves cholesterol levels and lower cardiovascular risks
Vitamin A	10%	Key for good vision, a healthy immune system and cell growth

Whole milk is 3.5% milk fat with a rich, creamy texture. Fatty acids in whole milk are important to the development of the brain and nervous system.

2% Low fat milk is fortified with skim milk and has the same benefits as whole milk with less milk fat and calories.

1% Low fat milk is produced by reducing the milk fat content even more than 2% with fortified skim milk.

Skim milk is also called nonfat or fat free milk. It has less than ½ gram of fat per serving, 45% less calories than whole milk. Yet skim milk still supplies all the nutrients of whole milk.

Buttermilk is typically made from nonfat or low fat milk. It is cultured sour milk made by adding certain organisms to sweet milk.

Milking Equipment/Parlor

Dairy cows are milked at least twice a day, while some are milked three times a day! The only time a cow does not have to be milked is in the two months before she gives birth to her calf. However, she must give birth to at least one calf before starting to be milked for the first time. Otherwise, she is referred to as a heifer.

Before milking, the cow's udder is washed. This keeps the milk clean and helps the cow let her milk down into her teats for milking. Once the udder is clean, the milking machine is put on. There are four suction cups on each milking machine unit. They fit on the cows' teats and gently squeeze out the milk, similar to the suction pressure of a calf's mouth.

The milking machine pumps the warm milk (101 degrees) from the cow through pipes into a refrigerated tank (a bulk tank) where it is cooled and stored.

After the bulk tank is full, a milk tanker truck hauls the cooled milk to the processing plant. The tank on the truck is like a giant thermos bottle that is insulated to keep the milk cold and fresh!

When the milk arrives at the processing plant, it will be tested for bacteria and then pasteurized. Milk is also homogenized at the dairy plant. After all these procedures, the milk is then processed into the many delicious dairy products we enjoy today.

Robotic Milking Units

With the introduction of robotic milking units, also known as automatic milking systems, dairy farmers are becoming more efficient by allowing the machine to do the milking for them. This also allows for more focus to be put on other farm management issues.

Robotic milking systems grant the cow the choice to be milked anytime throughout the day. Sensors within the milking unit will only allow for 2 or 3 milkings within a 24-hour period. Farmers monitor the cow's production and health with the use of computer systems and other devices.

Some Types of Milking Parlors

60° Milking Parlor Type Herringbone

In the 60° milking parlor the cows are standing at a 60° angle.

Advantages

- Shorter distance between cows means less walking for the operator
- Working position of operator very close to the cow
- Milking takes place between the back legs - good working position

Elevating floor for milking parlors

The individual milking parlor floor is designed with an elevating system operated by hydraulics. The floor height can be adjusted during milking.

The floor frame is made from stainless steel on heavy longitudinal and transverse profiles. This design ensures that the floor is strong.

Advantages

- Ideal working conditions
- Any operator/milker, no matter how tall, can operate the plant in an ergonomically correct working position
- It might be relaxing to change the working position by adjusting the height of the floor slightly during milking

Rotary Milking Parlor

Rotary milking parlors are available with 12 places and more. The capacity is between 100 and 120 cows per hour for one operator. For two operators the capacity is over 200 cows per hour.

Floor sections are made of special concrete, which ensures that the heavy load is distributed over the entire floor surface.

Advantages

- Very large capacity
- Several functions can be operated centrally
- A sensible and profitable solution for large herds

There is also the traditional BARN milking set-up.

Free Stall & Stanchions (where the cows stand with a bar around their necks or a chain clipped to the leash around their necks). The farmer comes on the side of the cow and puts the milking machine on the teats.

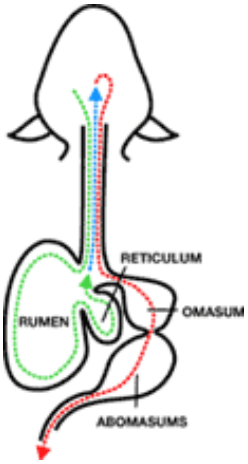
Smaller operations (50-60 milking cows) typically utilize the traditional free stall/stanchion concepts; however, this concept is slowly disappearing with the introduction of other milking machine designs.

Barns are also used as shelter from extreme weather conditions.

Cow Food and Digestion

- Cows drink roughly 25-50 gallons (bathtub full) of water per day,
- eat about 40-50 pounds of feed per day and
- 50 pounds of silage every day.

Cows are ruminants (Any of various hoofed, even-toed, usually horned mammals, such as cattle, sheep, goats, deer, camel, and giraffes, characteristically having a stomach divided into four digestive compartments and chewing a cud consisting of regurgitated, partially digested food.).



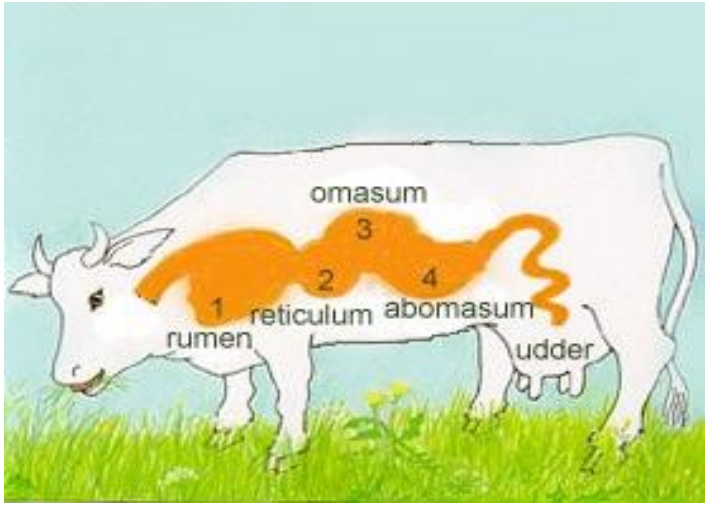
Four digestive compartments are:

- **RUMEN** (large pouch the food passes into when the cow swallows),
- **RETICULUM** (where food moves to and rolls into balls which the cow coughs up - cud),
- **OMASUM** (does more digesting and filtering),
- **ABOMASUM** (finishes digestion).

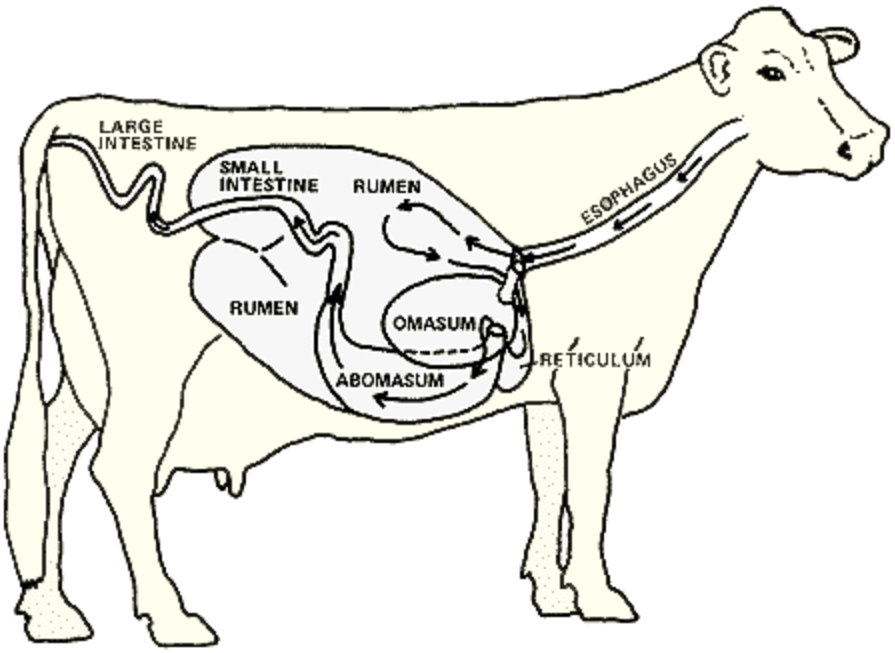
The cow has four digestive compartments and undergoes a special digestive process to break down the tough and coarse food it eats. When the cow first eats, it chews the food just enough to swallow it. The unchewed food travels to the first two compartments, the rumen and the reticulum, where it is stored until later.

When the cow is full from this eating process, she rests. Later, the cow coughs up bits of the unchewed food called cud and chews it completely this time before swallowing it again. The cud then goes to the third and fourth compartments, the omasum and abomasum, where it is fully digested.

Some of this digested food enters the bloodstream and travels to a bag called the udder, where it is made into milk that will come from her teats, while the rest goes towards the cow's nourishment.



Milk: From Cow to Carton



Anatomy of the adult cow digestive tract.

- Cows graze by curling their tongue around grass and pulling, rather than nibbling it like a horse does.
- The light natural yellow in butter comes from beta-carotene found in the grasses cows eat.
- A cow chews her cud from 6-8 hours each day.
- Most cows chew at least 50 times per minute.
- Cows have a total of 32 teeth. They are different from humans; on the top front, cows have a tough pad of skin instead of teeth. They have eight incisors on the bottom front and six strong molars on the top and bottom of each side to grind their food.
- The age of a cow can be determined by its teeth.
- The average body temperature of a cow is 101.5 degrees Fahrenheit.
- A cow has 207 bones whereas humans have 206 bones as an adult.
- Dairy cows can produce roughly 125 pounds of saliva per day.
- More than 70% of the liquid in a cow's stomach is from saliva.
- When a cow chews its cud, the saliva acts like Tums®. (Tums® are alkaline, opposite of an acid. The two combined result in a neutral pH.)

Feed Stuff

Hay
Grass, clover, alfalfa, etc., cut and dried for use as forage.

Haylage
Silage of about 40 to 50 percent moisture made from forage stored in a silo.

Grain
Small, hard seed of a food plant such as wheat, corn, soybean, cottonseed, rye, oats, rice, or millet.

Silage
Coarse food for livestock, composed of entire plants, including leaves, stalks, and grain, of such forages as corn and sorghum preserved through fermentation in a silo; ensilage.

Beet Pulp
Beet pulp is the residue from manufacturing sugar from sugar beets. It is a very palatable and bulky feedstuff, containing about 85% of the energy value of corn. The higher level of fiber is helpful in maintaining milk fat percent in cows on low roughage rations.

Dried Brewers Grains
Dried extract residue of barley malt alone or in mixture with other cereal grains from the manufacture of wort or beer. Used as an excellent source of high quality by-pass protein and digestible fiber, dried brewers grains have a good amino acid, mineral and B-vitamin content.

Citrus Pulp
Citrus pulp is a mixture of peel, inside portions, and cull fruits of the citrus family (orange, grapefruit, etc.) which have been dried to produce a coarse, flaky product. It is relatively high in energy, calcium, and digestible fiber and low in protein and is similar to beet pulp in feeding value.

Bakery By-products
Bakery by-product is a term used to refer to a variety of products containing about 11% crude protein and 80% TDN (total digestible nutrients). The products contain various combinations of bread, crackers, cookies, doughnuts, cakes, and so forth, which are usually dried and ground together.

Cane Molasses
Cane molasses is the most common liquid supplement fed to dairy cattle. More recently, varieties of molasses products are available to livestock feeders. Among them are cane molasses, citrus molasses, beet molasses, masonex and a number of products resulting from the production of alcohol.

Whey
Whey is the residue from cheese production and consists primarily of lactose, minerals and water. It can be fed dry or as a liquid. The liquid is termed sweet whey and acid whey. Sweet whey comes from the manufacture of cheddar and mozzarella cheese and acid whey results from the production of cottage cheese and is less palatable than sweet whey. Lacto Whey is similar in appearance to molasses but has a higher viscosity.

Hominy Feed
Hominy feed is a by-product from the manufacture of pearl hominy, hominy grits or table meal from corn. It is similar in appearance to ground corn, has slightly more energy and protein, and has similar feeding characteristics.

Peanut Skins
Peanut skins consist of skins from processed peanuts, broken nuts and nuts that may have been rejected during the preparation of peanuts for human consumption.

Rice Bran
Rice bran is composed of the bran layer and germ of the rice, which are removed in milling rice for human consumption.

Soybean Hulls
Soybean hulls are a by-product of soybean processing for oil and meal production. Since soybean hulls have urease activity, a problem may develop in rations containing urea. Heat treatment destroys the urease activity. Soybean millrun is heat-treated soybean hulls.

Wheat Mill feeds
The wheat mill feeds (bran, millrun, middlings, shorts, red-dog) are by-products produced during the milling of wheat for flour. They consist of varying amounts of bran, germ, and flour. Wheat middlings (also called midds) are a common ingredient in cattle feeds.

Ricemill By-Products
Rice mill by-product is a low-energy, high-fiber (28%) feedstuff that consists of rice hulls, rice bran, rice polishings and broken rice grains. In contrast to soybean hulls, the fiber content is low in digestible energy.

Cottonseed Hulls
Cottonseed hulls are used mostly in the southern area of the U.S. They are low in protein, calcium, phosphorus and energy and high in fiber. Cottonseed hulls are palatable and are used as roughage for cattle, especially in areas where good quality forages are scarce. They occasionally are included in grain mixes to increase the bulk density and crude fiber content. They can be helpful in supporting fat test in low fiber or low roughage rations.

Holstein (Holstein-Friesian)

Originating in Northern Holland and Friesian near the Netherlands, they are the largest dairy cows in size, weighing approximately 1500 pounds. They give an average of 6.4 gallons or 55 pound of milk per day. Holsteins are primarily black and white, but sometimes red and white in color (Referred to as Red & Whites).

Jersey

A Jersey cow weighs about 900 pounds. They mature earlier than other breeds and are honey-brown in color, ranging from light to dark, occasionally having white spots. Their milk is rich and creamy and they give about 4.5 gallons or 39 pounds of milk per day. They originated from the British Channel Island of Jersey.

Guernsey

Guernsey cows are an orange-red breed often having white legs and white areas on the body (cream-and-brown breed). They weigh about 1200 pounds. They are noted for their rich golden milk due to carotene or Vitamin A, as part of their diet. This breed is from the Isle of Guernsey in the English Channel. They give about 4.6 gallons or 39 pound of milk per day.

Brown Swiss

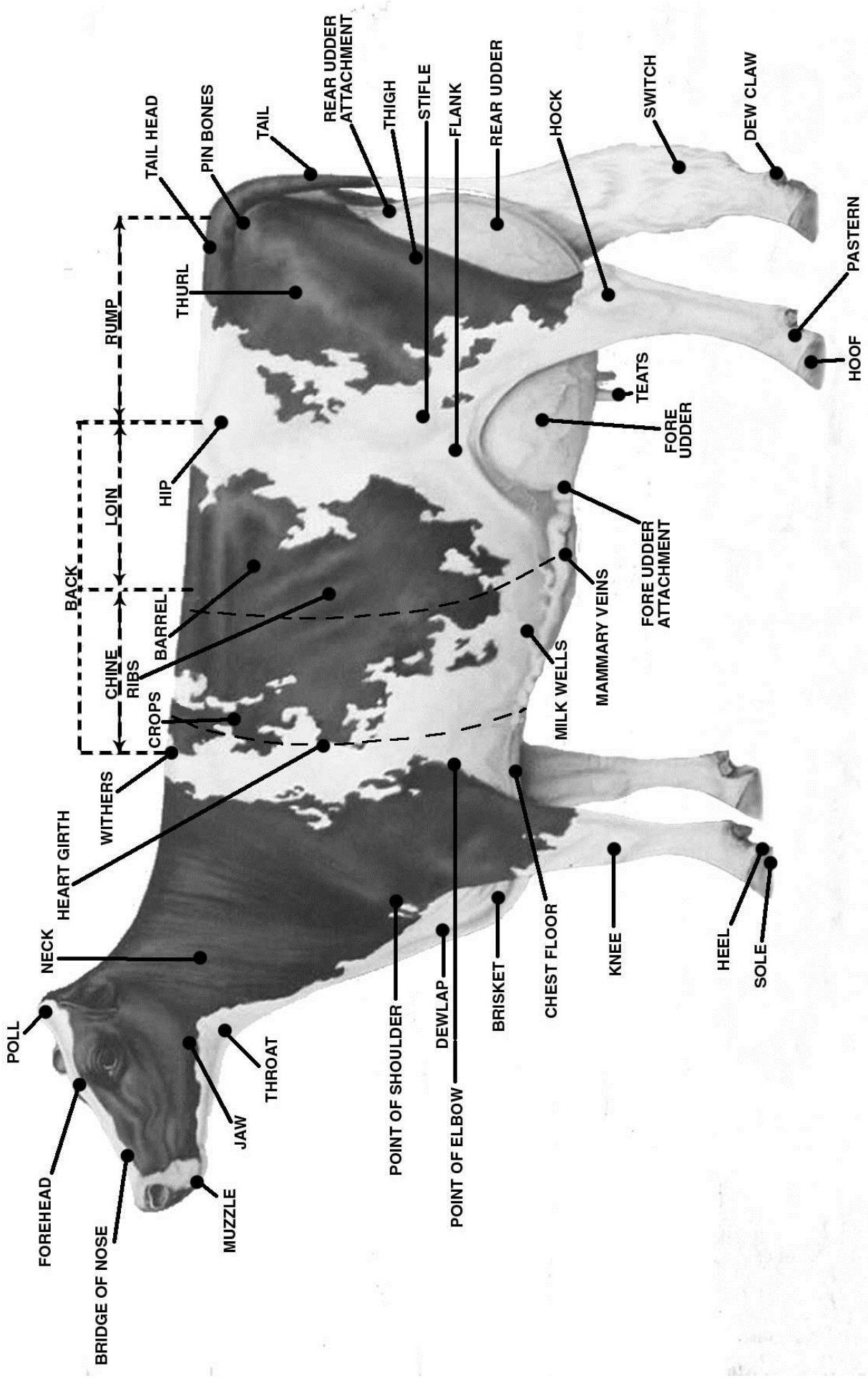
Brown Swiss cows vary in color from silver to dark brown. They are known for their strength and ruggedness and weigh about 1450 pounds. Their milk is excellent for cheese production and they give about 5.3 gallons or 46 pounds of milk per day. They come from the slopes of the Alps of Switzerland as the name implies.

Ayrshire

Ayrshire cows are a rusty-red and white. They weigh about 1200 pounds. They originated from the County of Ayr in Scotland and were known as the "aristocrat of dairy breeds" due mainly to their large size. They yield about 5 gallons or 43 pounds of milk per day.

Milking Shorthorn

Originated along the northeastern side of England in the valley of the Tees River, Milking Shorthorns are an averaged sized breed. They weigh about 1400 pounds. Their coloring is all red, red with white markings, all white or roan. They produce about 4.8 gallons or 41 pounds of milk per day. The Milking Shorthorn was not even declared a dairy breed until 1969.


POLL
NECK
HEART GIRTH
WITHERS
CROPS
RIBS
BARREL
CHINE
LOIN
BACK
RUMP
HIP
THURL
TAIL HEAD
PIN BONES
TAIL
REAR UDDER ATTACHMENT
THIGH
STIFLE
FLANK
REAR UDDER
HOCK
SWITCH
DEW CLAW
PASTERN
HOOF
TEATS
FORE UDDER
FORE UDDER ATTACHMENT
MAMMARY VEINS
MILK WELLS
CHEST FLOOR
BRISKET
KNEE
HEEL
SOLE
DEWLAP
POINT OF ELBOW
POINT OF SHOULDER
THROAT
JAW
MUZZLE
BRIDGE OF NOSE
FOREHEAD

REVISED
August 2009

Judging

Show Ring
The cows in the ring will be placed from first through last.

The show is divided into classes so that animals of the same age are in a class together. The judge is judging each animal in four different categories:

1. **Frame**
2. **Dairy Strength**
3. **Rear Feet & Legs**
4. **Udder**

What Does a Good Cow Look Like?
When judging a cow, many things are taken into consideration, concerning how that animal will function and produce in a herd.

Frame (15%)
The frame includes all skeletal parts of the cow except rear feet and legs. It is important for a cow to be strong for ease of movement in and out of the barn/parlor. The following are the traits considered when judging the frame.

- **Rump** (5 points) – long and wide throughout. Pin bones should be slightly lower than hip bones.
- **Front End** (5 points) – front legs should be straight with good width between the knees. Shoulder blades and elbows set tightly against the body.
- **Stature** (2 points) – height adequate at withers with a proportionate body length.
- **Back/Loin** (2 points) – straight and strong; the loin and rump – broad, strong and nearly level.
- **Breed Characteristics** (1 point) – exhibits overall style and balance. Clean cut head, broad muzzle with a strong jaw for maximum eating capacity.

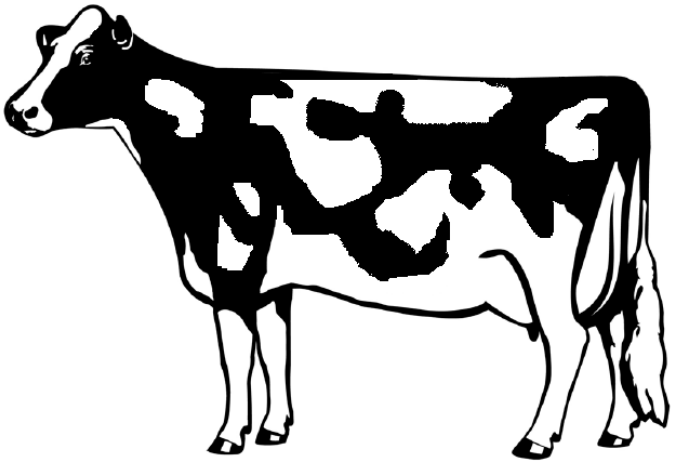
Dairy Strength (25%)
A combination of dairyness and strength that supports sustained production and longevity. Major consideration is given to general openness and angularity while maintaining strength, width of chest; spring of fore rib, and substance of bone without coarseness. Body condition should be appropriate for stage of lactation. Listed in priority order, the descriptions of the traits to be considered are as follows:

- **Ribs** (8 points) – wide apart. Rib bones wide, flat, deep, and slanted towards the rear. Well sprung, expressing fullness and extending outside the point of elbows.
- **Chest** (6 points) – deep and wide floor showing capacity for vital organs, with well sprung fore ribs.

- **Barrel** (4 points) – long, with adequate depth and width, increasing toward the rear with a deep flank.
- **Thighs** (2 points) – lean, incurving to flat and wide apart from the rear.
- **Neck** (2 points) – long, lean, and blending smoothly into shoulders; clean-cut throat, dewlap, and brisket.
- **Withers** (2 points) – sharp with chine prominent.
- **Skin** (1 point) – thin, loose, and pliable.

Rear Feet & Legs (20%)
Evidence of mobility is given major consideration. Feet and rear legs are evaluated for strength and agility. Seeing a cow move freely is the most important aspect. The following are the traits considered when judging the rear feet and legs.

- **Movement** (5 points) – the use of feet and rear legs, including length and direction of step. When walking naturally, the stride should be long and fluid with the rear feet nearly replacing the front feet.
- **Rear Legs-Side View** (3 points) – moderate set (angle) to the hock.
- **Rear Legs-Rear View** (3 points) – straight, wide apart with feet squarely placed.
- **Feet** (3 points) – steep angle and deep heal with short, well-rounded closed toes.
- **Thurl Position** (2 points) – near central placement between the hip and pin bones.
- **Hocks** (2 points) – adequate flexibility with freedom from swelling.
- **Bone** (1 points) – flat and clean with adequate substance.
- **Pasterns** (1 points) – short and strong with some flexibility, having a moderate, upright angle.



Udder (40%)

The udder is the most important feature of a cow. It is comprised of four quarters with the two rear quarters producing 60% of the milk and the two front quarters producing 40% of the milk. High milk yield and a long productive life are just two of the benefits of a well-attached udder. The following are the traits considered when judging the udder.

- **Udder Depth** (10 points) – moderate depth relative to the hock with adequate capacity and clearance. Consideration is given to lactation number and age.
- **Rear Udder** (9 points) – wide and high, firmly attached with uniform width from top to bottom and slightly rounded to udder floor.
- **Teat Placement** (5 points) – squarely placed under each quarter, plumb and properly spaced.
- **Udder Cleft** (5 points) – evidence of a strong suspensory ligament indicated by clearly defined halving.
- **Fore Udder** (5 points) – firmly attached with moderate length and ample capacity.
- **Teats** (3 points) – cylindrical shape; uniform size with medium length and diameter; neither short nor long is desirable.
- **Udder Balance and Texture** (3 points) – udder floor level as viewed from the side. Quarters evenly balanced, soft, pliable, and well collapsed after milking.

Note: *In the Holstein breed, an equal emphasis is placed on fore and rear udder (7 points each). All other traits are the same as listed.*

Did you Know?

- ✓ A cow must have had a calf to produce milk. A cow usually has her first calf around two years of age. The gestation period is 9 months (same as humans). In addition, a newborn calf can walk on its own one hour after birth, weighs approximately 60-100 pounds and has teeth.

- ✓ A cow stands up and lays down about 14 times a day. Contrary to popular opinion, cows sleep lying down – just like people!

- ✓ Top Ten Ice Cream Consuming Cities in order: 1) Long Beach, CA; 2) Dallas, TX; 3) Philadelphia, PA; 4) Columbus, OH; 5) Milwaukee, WI; 6) Fort Worth, TX; 7) Washington, DC; 8) Bakersfield, CA; 9) Fresno, CA and 10) Portland, OR. (2012 statistic)

- ✓ New York leads the United States in yogurt production bumping California to second place in 2013.

- ✓ Cows are social animals. They will follow each other into and out of the barn. Did you know…you could lead a cow upstairs, but not downstairs, because cow's knees cannot bend properly to walk back down? However normally they can be lead down a ramp.

- ✓ Cows can detect odors up to five (5) miles away. In addition, they clean their noses with their tongues.

- ✓ Eighty (80) percent of the world's vanilla bean used for ice cream is grown in Madagascar.

- ✓ Holstein cow markings are as unique as fingerprints, no two are alike and a cow's nose has a unique nose-print, just like human fingerprints.

- ✓ Mexico is the largest buyer of U.S. cheese, ice cream and yogurt. Mexico purchases more than half of all the ice cream exports.

- ✓ Most cows give more milk when they listen to music.

- ✓ Per capita, Greece consumes the most cheese internationally (68.5 pounds), followed by France (52.2 pounds), Malta (49.4 pounds), Germany (45.5 pounds), and Austria (40.9 pounds).

- ✓ Remember the tale of Little Miss Muffet? Her curds and whey were an early version of cottage cheese.

- ✓ The nation's first dairy school was created at the University of Wisconsin in 1890. It remains among the top Dairy Science Departments in the United States.

- ✓ To get the same amount of calcium provided by a quart of milk, you would have to eat 16 pounds of peas, 22 oranges, 50 tomatoes or 50 slices of whole wheat bread.

- ✓ Turophobia is the fear of cheese. Turophilia is the love of cheese.

- ✓ Wisconsin makes more than 600 different varieties, types and styles of cheese. Wisconsin is the sole producer of Limburger cheese.