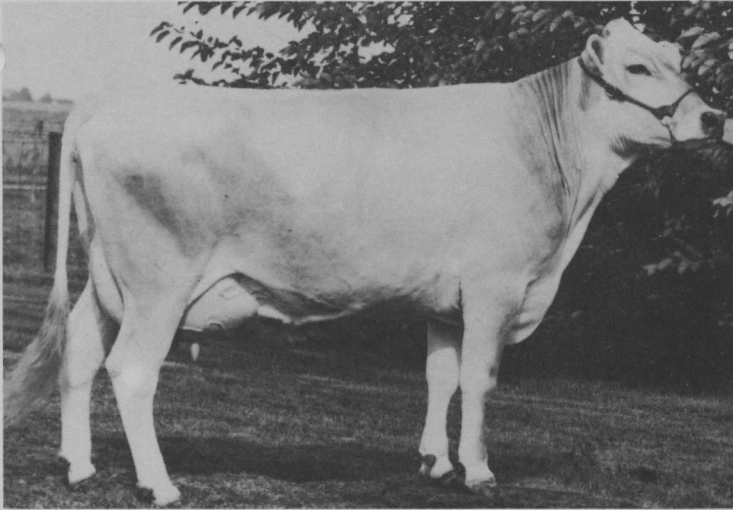
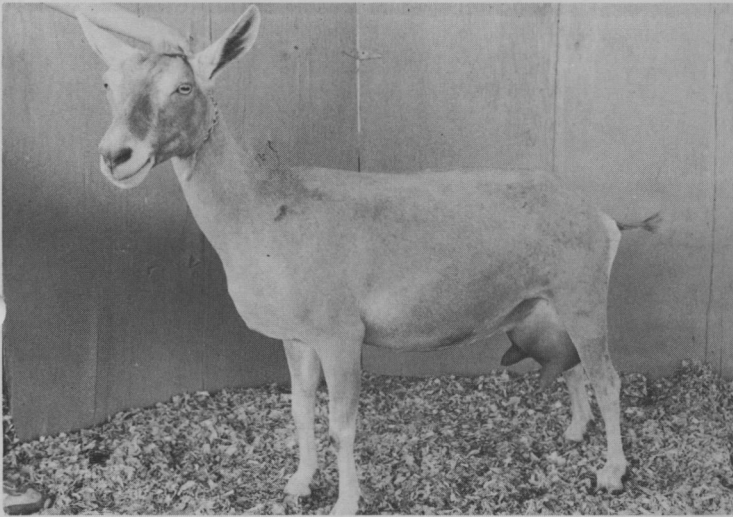




4-H Dairy Cattle and Dairy Goat Evaluation and Judging

4-H 1017
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OREGON STATE UNIVERSITY EXTENSION SERVICE

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In teaching decision-making to youth, it is important to keep learning active. We encourage you to:

- Obtain a copy of 4-H 0255L, *Leader Guide on Judging Teaches Decision Making*.
- Read 4-H 1014L, *4-H Livestock Leader Guide*.
- Use slides available from the 4-H Audio Visual Library (through your county Extension office).
- Contact breed associations for literature and slides (addresses are in back of *Livestock Leaders' Guide*).
- Use tours, discussion, judging experiences, and other activities when appropriate.

Revised by Mike Gamroth, Extension animal science specialist; H.P. Adams, Extension animal science specialist emeritus; Duane P. Johnson, state 4-H leader; Ross Penhallegon, Extension agent-at-large; with the assistance of the 4-H Development Committee, Animal Science.

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4-H Dairy Cattle and Dairy Goat Evaluation and Judging

Why Evaluate Livestock?

Visual appraisal (evaluation) is important in selecting livestock. While the modern breeder combines performance records with live evaluation when selecting animals, the traits that indicate high production are important in selection.

Livestock evaluation and judging is an art developed through good teaching, patient study, and practice. To be a good evaluator and judge of livestock members must:

- Know the parts of the animal and their location.
- Know which parts are important for breeding stock or milk production and recognize the most desirable shape of each part.
- Visualize the “ideal” animal.
- Make critical observations and identify and compare the strong (good) and weak (bad) points of each animal.
- Develop a system of analyzing and examining animals so they will not overlook important points.

Everyone makes decisions. The fundamentals of judging (decision-making) are always around us. In judging dairy animals, you’ll find that one animal may excel in some, but not all, desirable characteristics.

A judging experience involving dairy cows or goats develops what dairy experts call an “eye for cows” or an “eye for does.” This is the ability to evaluate an animal’s conformation in relation to production and longevity. These skills help young people develop the ability to make decisions on selection of animals that will stay in their herds and produce milk.

Type vs. production

Some traits we look for in type are not closely related to milk production. Therefore, in practice, dairy producers pay close attention to milk production records in selecting animals. Nevertheless, traits such as dairy character, size, and udder

capacity are related to production; and strong feet and legs and a well-attached udder are necessary for longevity.

Many other type traits are poorly related to milk production, but do contribute to the appearance of the animal and the satisfaction of the owner.

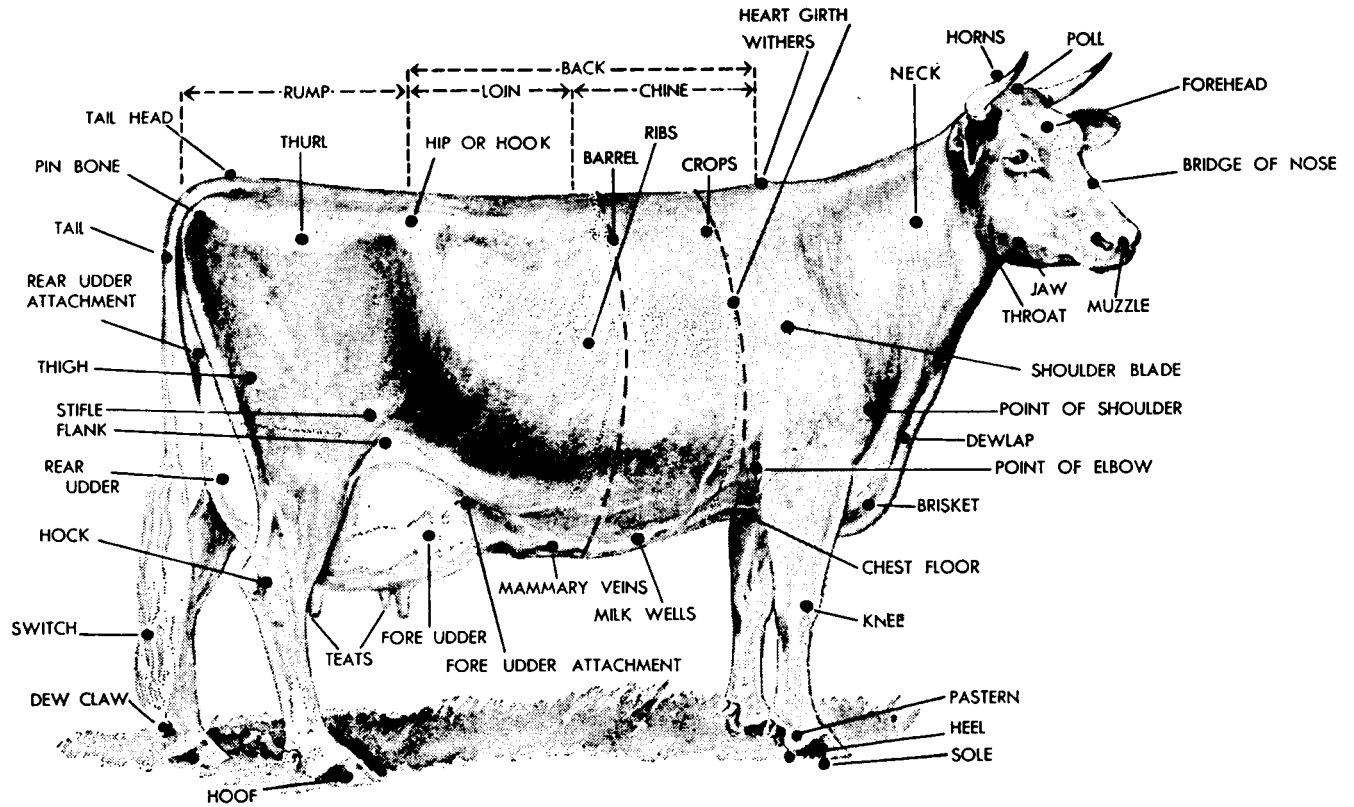
In commercial milk-producing dairy cattle herds, it is recommended that 90 percent of the selection basis be on milk production records and 10 percent be based on type or general appearance.

In goat herds, where the amount of milk produced is of primary importance, it is recommended that 75 percent of the selection basis be on production records and 25 percent be on type or general appearance.

Steps in learning to judge

- Members must learn the names and location of all the parts of a dairy cow or goat. They do this by studying the drawings on pages 2 and 13.
- Members must know how the ideal animal looks. Breed magazines and farm papers are useful for studying models and pictures of champions that approach the ideal in conformation. Judging a class of four animals is not only a comparison among them, but a comparison of each animal to the ideal.
- They should study the Dairy Cow Unified Score Card, page 3, or the ADGA Score Card, page 14, and learn the value of points for general appearance, dairy character, body capacity, and mammary system. They should learn the relative importance of the various parts of the anatomy.
- Good dairy judges take every opportunity to judge and analyze cows and goats in comparison to the ideal. They decide on strong and weak points of conformation. Pictures and diagrams will serve this purpose almost as well as live animals.
- Judges train themselves to remember the animals they have judged. They can use this knowledge to arrive at decisions in future experiences.

Dairy Cattle Evaluation



To analyze and discuss her strong and weak points, evaluators must know the parts of a dairy cow shown in the drawing.

Dairy Cow Unified Score Card

Perfect Score Breed characteristics should be considered in the application of this score card.

Order of observation

1. GENERAL APPEARANCE

- 35 (Attractive individuality with femininity, vigor, stretch, scale, and harmonious blending of all parts with impressive style and carriage.)
- 5 **Breed characteristics**—(see section on breed standards)
- 5 **Stature**—height including moderate length in the leg bones with a long bone pattern throughout the body structure.
- 5 **Front end**—adequate constitution with strength and dairy refinement. **Shoulder blades** and elbow set firmly and smoothly against the chest wall and withers to form a smooth union with the neck and body. **Chest** deep and full with ample width between front legs.
- 5 **Back**—straight and strong; **loin**—broad, strong, and nearly level; **rump**—long, wide, and nearly level with pin bones slightly lower than hip bones. **Thurls** high and wide apart; **tail head** set nearly level with topline and with tail head and tail free from coarseness.
- 15 **Legs and feet**—bone flat and strong. **Front legs** straight, wide apart, and squarely placed; **hind legs** nearly perpendicular from hock to pastern from a side view and straight from the rear view; **hocks** cleanly molded, free from coarseness and puffiness; **pasterns** short and strong with some flexibility and **feet** short, well rounded with deep heel and level sole.

2. DAIRY CHARACTER

- 20 (Angularity and general openness without weakness, freedom from coarseness, and evidence of milking ability and udder quality—giving due regard to stage of lactation.)
- Neck**—long, lean, and blending smoothly into shoulders; clean-cut throat, dewlap, and brisket; **withers**—sharp with chine prominent; **ribs**—wide apart, rib bones wide, flat, and long; **thighs**—incurving to flat and wide apart from the rear view, providing ample room for the udder and its rear attachment, and **skin**—thin, loose, and pliable.

3. BODY CAPACITY

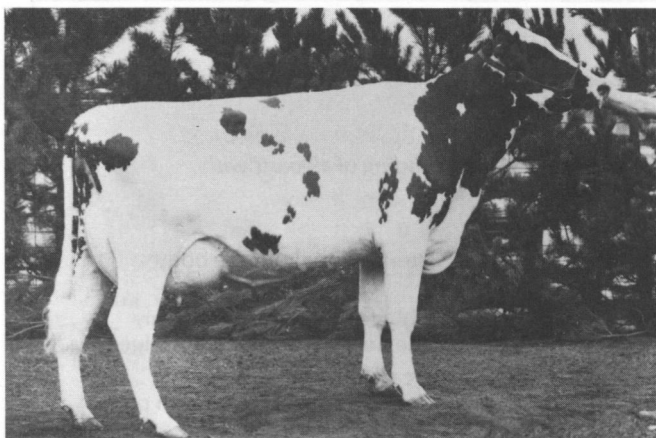
- 10 (Relatively large in proportion to size, age, and period of gestation of animal, providing ample capacity, strength, and vigor.)
- Chest**—large, deep, and wide floor with well-sprung foreribs blending into the shoulders; crops full. **Body**—strongly supported, long, deep, and wide; depth and spring of rib tending to increase toward the rear; **flanks**—deep and refined.

4. UDDER

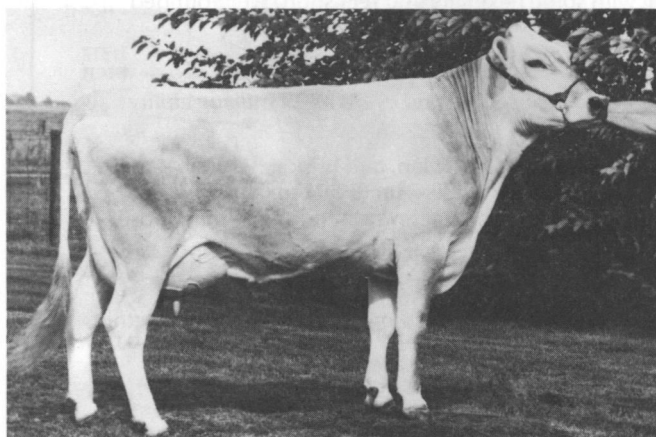
- 35 (Strongly attached, well-balanced with adequate capacity possessing quality indicating heavy milk production for long period of usefulness.)
- 6 **Fore udder**—strongly and smoothly attached, moderate length and uniform width from front to rear.
- 8 **Rear udder**—strongly attached, high, wide with uniform width from top to bottom and slightly rounded to udder floor.
- 11 **Udder support**—udder carried snugly above the hocks showing a strong suspensory ligament with clearly defined halving.
- 5 **Teats**—uniform size of medium length and diameter, cylindrical, squarely placed under each quarter, plumb, and well spaced from side and rear views.
- 5 **Balance, symmetry, and quality**—symmetrical with moderate length, width, and depth, no quartering on sides, and level floor as viewed from the side; soft, pliable, and well collapsed after milking; quarters evenly balanced. Because of the natural undeveloped udder in heifer calves and yearlings, less emphasis is placed on udder and more on general appearance, dairy character, and body capacity. A slight to serious discrimination applies to overdeveloped, fatty udders in heifer calves and yearlings.

100 **Total**

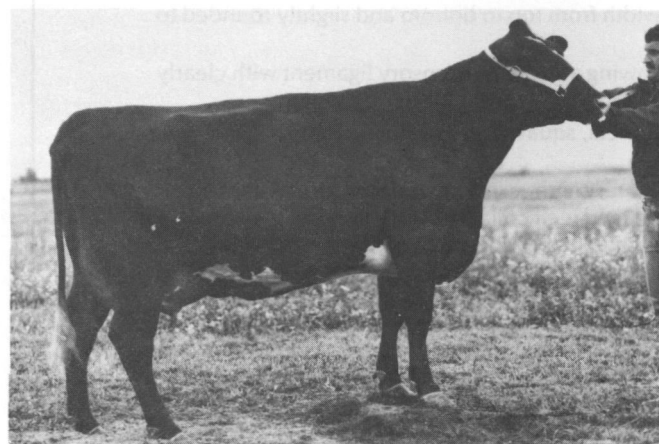
Breed standards



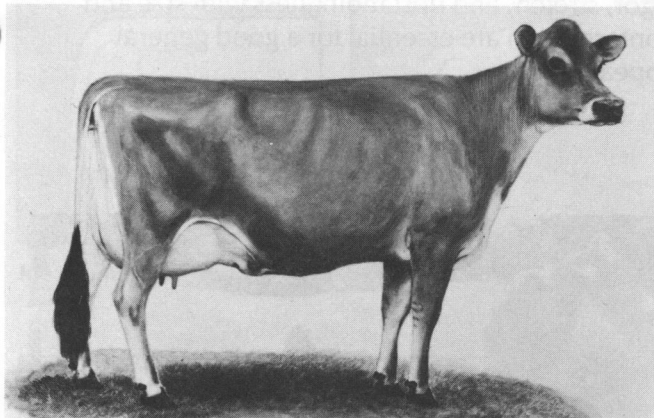
Ayrshire. The Ayrshire is a strong, robust animal showing constitution, vigor, symmetry, and balance throughout. This breed is characterized by strongly attached, evenly balanced, well-shaped udders. The head is clean cut and proportionate to the body; muzzle is broad with large, open nostrils, and a strong jaw; large, bright eyes; forehead broad and moderately dished; bridge of nose straight; ears medium size and alertly carried. The color is light to deep cherry red, mahogany brown, or a combination of any of these colors with white, or white alone. Distinctive red and white markings are preferred. A mature cow in milk should weight at least 1,200 lb.



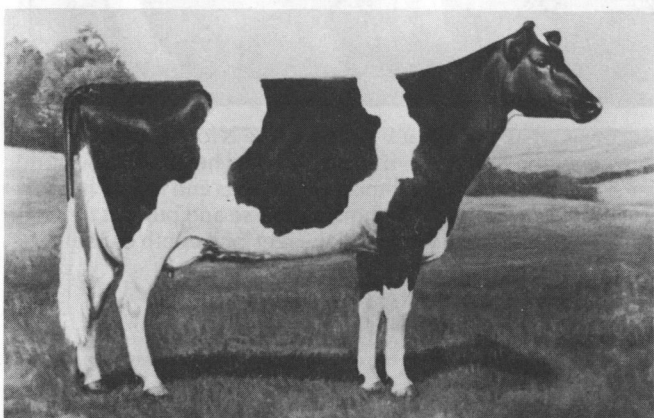
Brown Swiss. The Brown Swiss is strong and vigorous, but not coarse. Size and ruggedness with quality desired. Extreme refinement is undesirable. The head is clean cut and proportionate to the body; muzzle is broad with large, open nostrils and a strong jaw; large, bright eyes; forehead broad and slightly dished; bridge of nose straight; ears medium size and alertly carried. The color is solid brown, varying from very light to dark. The muzzle is black encircled by a mealy-colored ring, and the tongue, switch, and hooves are black. A mature cow in milk should weigh 1,500 lb.



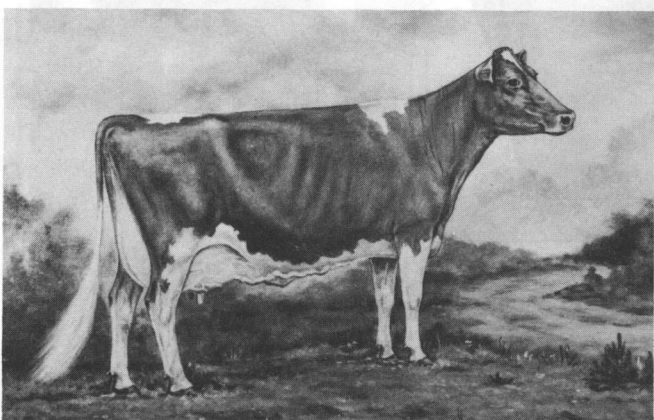
Milking Shorthorn. The Milking Shorthorn is strong and vigorous, but not coarse. The head is clean cut and proportionate to the body; muzzle is broad with large, open nostrils and a strong jaw; large, bright eyes; forehead broad and moderately dished; ears medium size and alertly carried. The color is red or white, or a blend of these colors. A mature cow should weigh 1,400 lb.



Jersey. The Jersey cow has sharpness with strength, indicating productive efficiency. The head is proportionate to the stature and shows refinement and a well-chiseled bone structure. The face is slightly dished with well-set dark eyes. The color is a shade of fawn with or without white markings. The muzzle is black encircled by a light-colored ring, and the tongue and switch may be either white or black. A mature cow in milk should weigh 1,000 lb.



Holstein. The Holstein has rugged, feminine qualities in an alert cow possessing Holstein size and vigor. The head is clean cut and proportionate to the body; muzzle is broad with large, open nostrils and a strong jaw; large, bright eyes; forehead broad and moderately dished; bridge of nose straight; ears medium in size and alertly carried. The color is black and white or red and white, with markings clearly defined. A mature cow in milk should weigh a minimum of 1,500 lb.

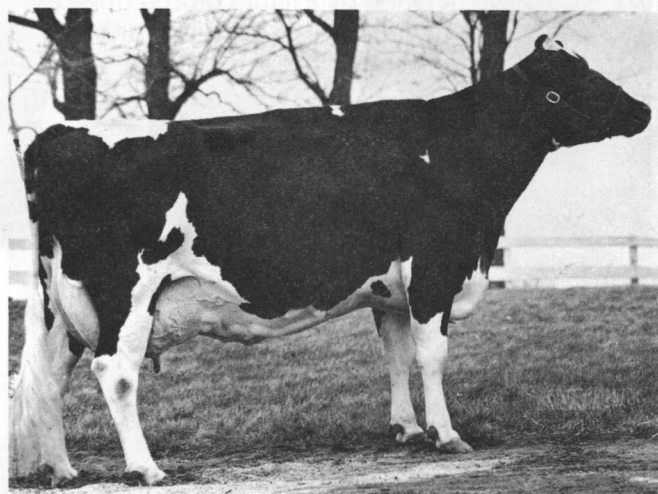


Guernsey. The Guernsey has size and strength, with quality and character desired. The head is clean cut and proportionate to the body; the muzzle is broad with large, open nostrils and a strong jaw; forehead broad and slightly dished; bridge of nose straight; ears medium size and alertly carried. The color is a shade of fawn with clearly defined white markings throughout. When other points are equal, a clear (buff) muzzle will be favored over a smoky or black muzzle. A mature cow in milk should weigh 1,150 lb.

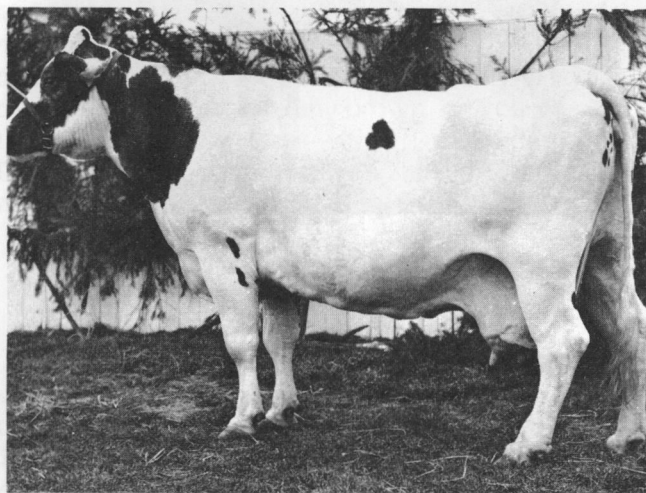
General appearance

General appearance should be the first observation. All parts of a cow should be considered in evaluating general appearance. The animal must be an attractive individual with the harmonious

blending of all parts to give impressive style and carriage. Dairy refinement and femininity, strength, vigor, stretch, and upstandingness with size and conformation are essential for a good general appearance.



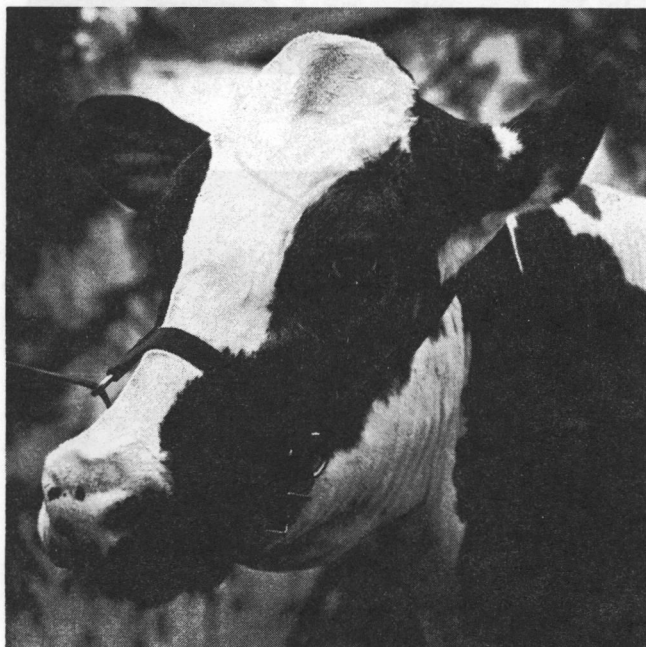
This cow has a strong top line and the vertebrae are clearly defined. The rump is free of excess tissue and is level from hips to pins. She stands squarely on her feet and legs as viewed from both the side and rear. She has a flat, clean bone and is strong on her pasterns.



This cow is weak in the back and loin. She is low at the thurls and patchy over the hips and pin bones. The tail head is coarse and heavy. She also lacks straightness of rear legs and is cow hocked as viewed from the rear. The bone is coarse and puffy at the hock. The pasterns are weak and the feet lack depth of heel.

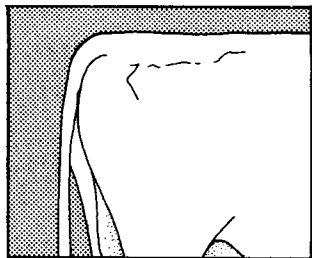


This cow's head is an example of excellent Holstein breed character. It is strong and of proper length and width, with a bright, attractive eye.

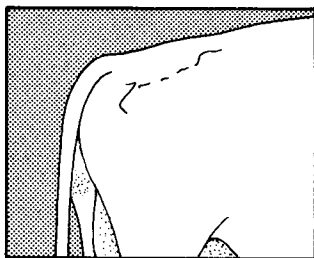


This cow's head is very coarse and plain. It dishes too much in the forehead and is too high at the poll. The eye is dull and the nostril too small.

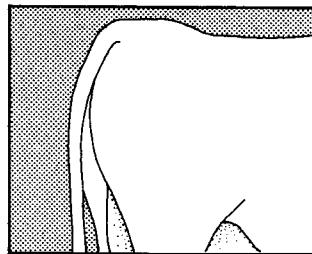
Rump conformations



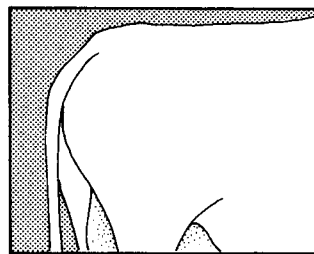
Ideal rump



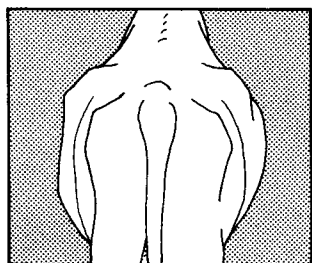
Sloping rump



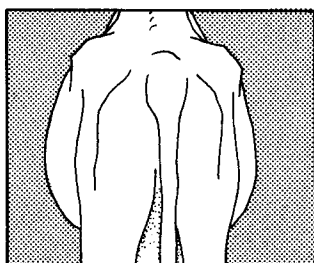
High tailhead



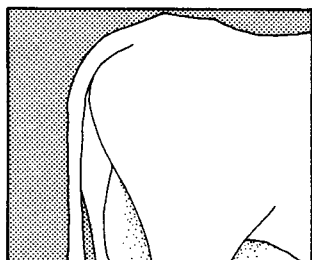
Low tail setting



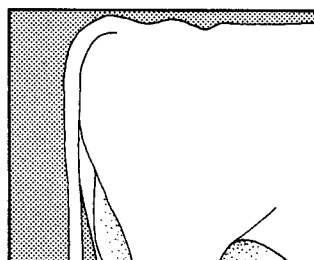
Ideal width of pin bones



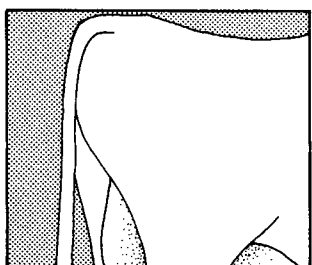
Narrow width of pin bones



High pelvic arch



Uneven rump

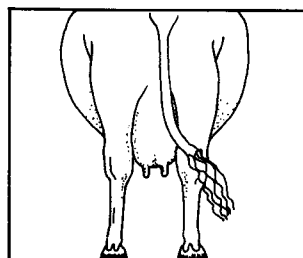


Rump sloping to low loin

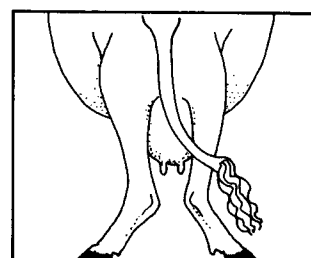


Extremely rough, sloping loin

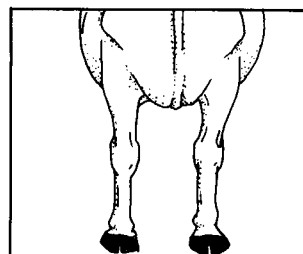
Foot and leg conformations



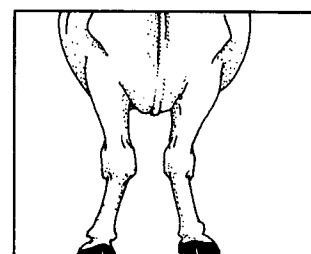
Strong, well-set hind legs



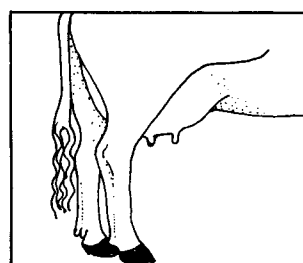
Sickled, cow-hocked, toes out



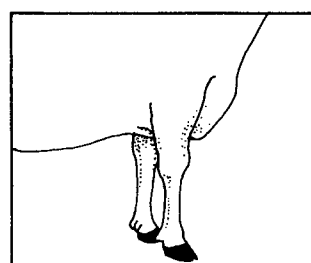
Ideal front view



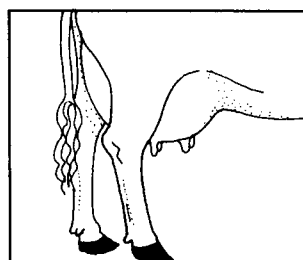
Lacking width of chest, toes out



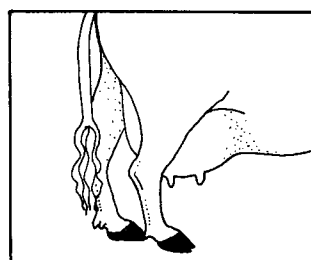
Legs too straight



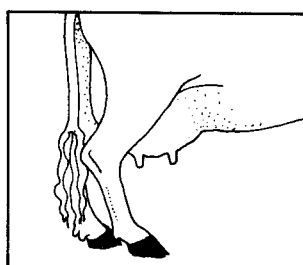
Ideal forelegs



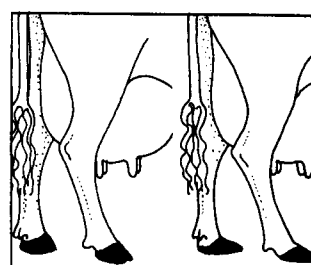
Ideal rear legs



Weak pastern



Weak, sickled



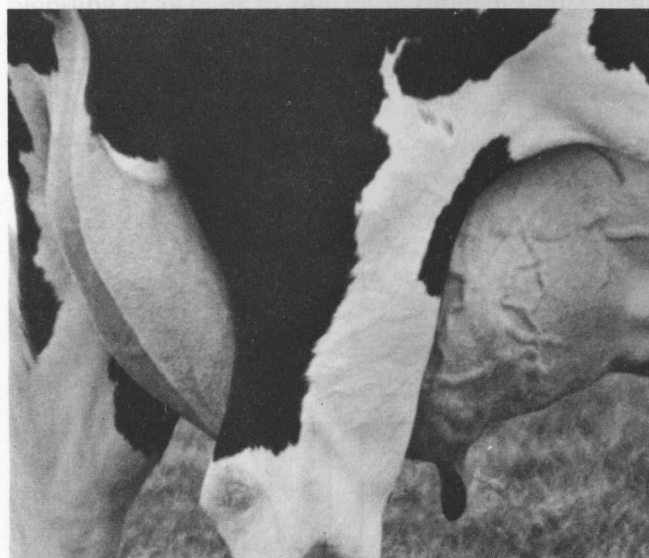
Depth of heel good—poor

Mammary system

The mammary system is the most important part of a cow. In a close placing, judges should rank the cow with best udder above the animal with which it is compared.

The udder should be strongly and smoothly attached in the front, with a high, wide attachment in the rear. It should not extend below the hock. The teats should be of convenient size for milking and squarely placed on the udder floor. Udder quality is determined by its softness, pliability, and fineness of texture.

Little emphasis should be placed on udders of calves and yearlings. As heifers approach freshening, more emphasis should be placed on udder characteristics.



A well-balanced udder, of correct size and shape, strongly attached fore and rear, with squarely placed teats. A strong suspensory ligament holds the udder to the body wall and prevents injury to the udder.

Fore udder



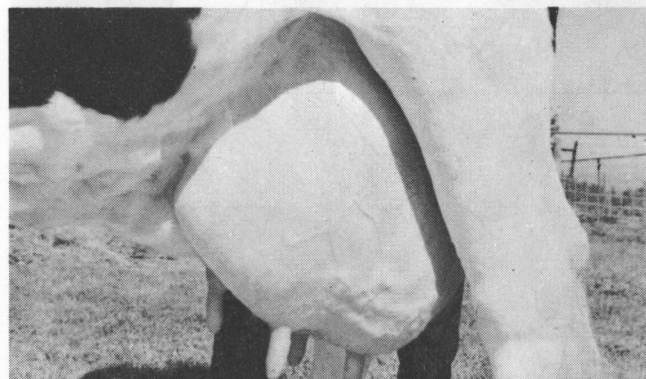
Moderately high and firmly attached (young animal—fore udder)



Bulgy or loose

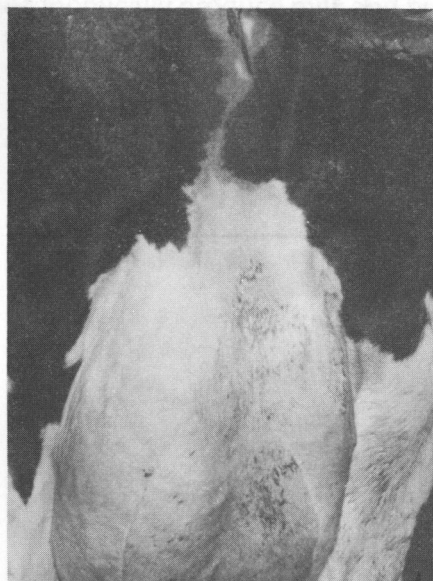


Short

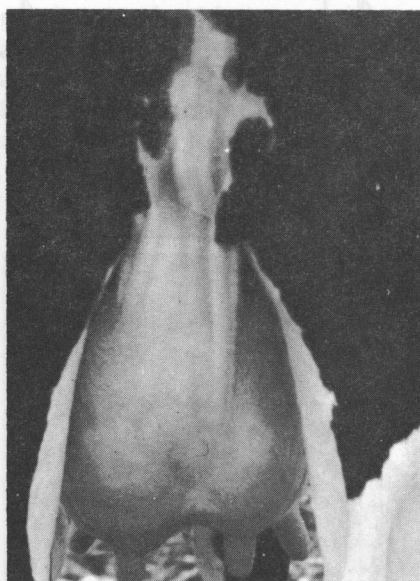


Broken and/or very faulty

Rear udder



Good rear udder attachment



Narrow and pinched

Teat placement and shape



Wide front teats

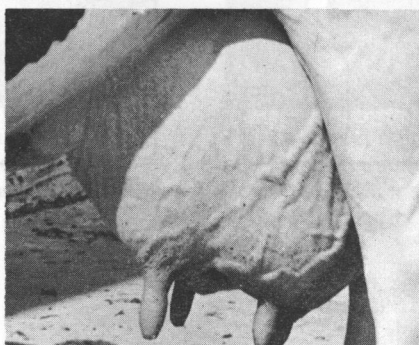


Undesirable shape

Udder support and floor



Broken suspensory ligament
and/or weak floor

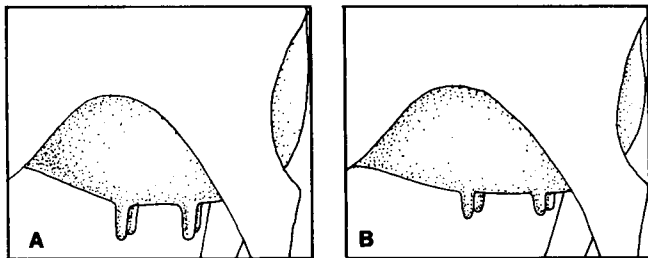


Floor too low

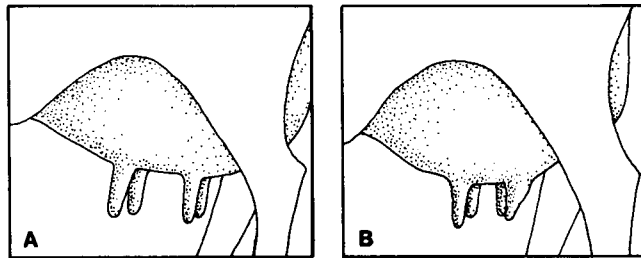


Tilted

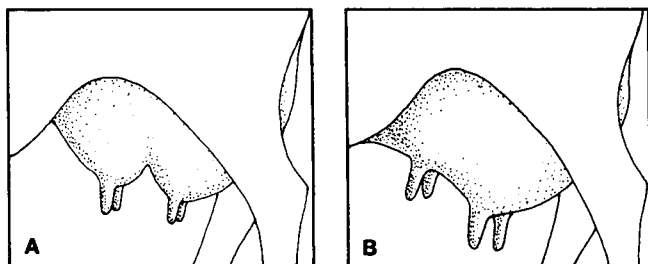
Variations in udders and teats



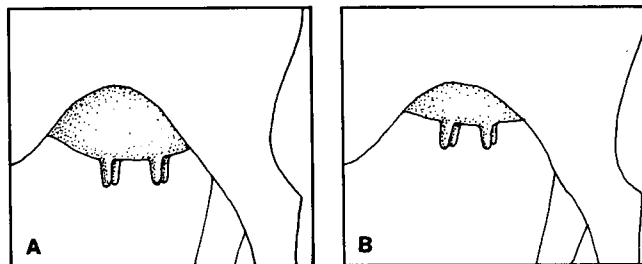
Excellent udder (A). Desirable shape, teats too short (B).



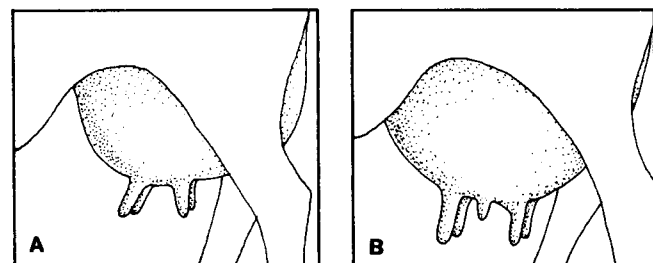
Teats well placed, but too long (A). Udder funnel shaped, poorly shaped teats (B).



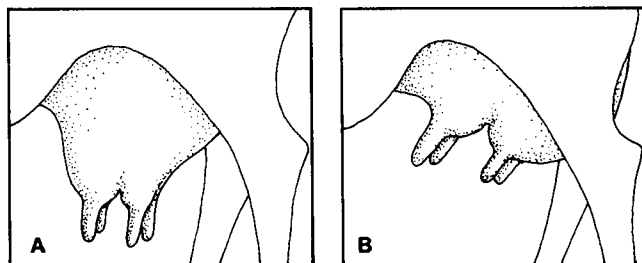
Udder severely cut up between quarters (A). Pendulous rear quarters and light forequarters (B).



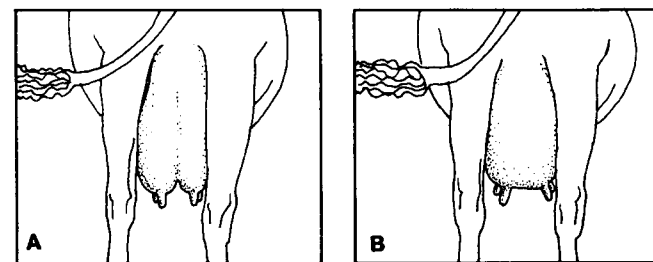
Small udder, not capacious (A). Underdeveloped udder (B).



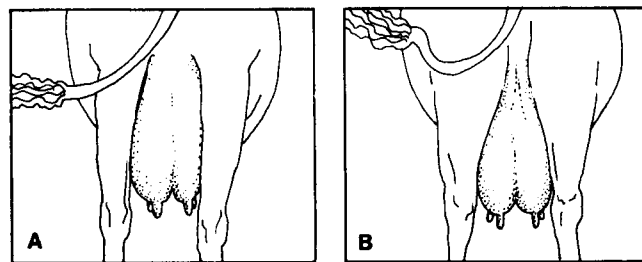
Poor teat placement, fore attachment weak, poorly shaped (A). Poor balance pendulous, five teats (B).



Pendulous, no rear udder, ill shaped (A). Tilted udder (B).



Excellent udder (A). Broken suspensory ligament (B).



Ideal attachment (A). Low attachment (B).

Dairy character

Dairy character indicates the cow uses feed to economically produce milk and butterfat rather than to accumulate meat or fat. It is usually expressed by sharpness and cleanness over the shoulder, prominence of hips and bones, and flatness of thighs with a general openness throughout. The length and

cleanness of neck and flatness of bone are also considered.

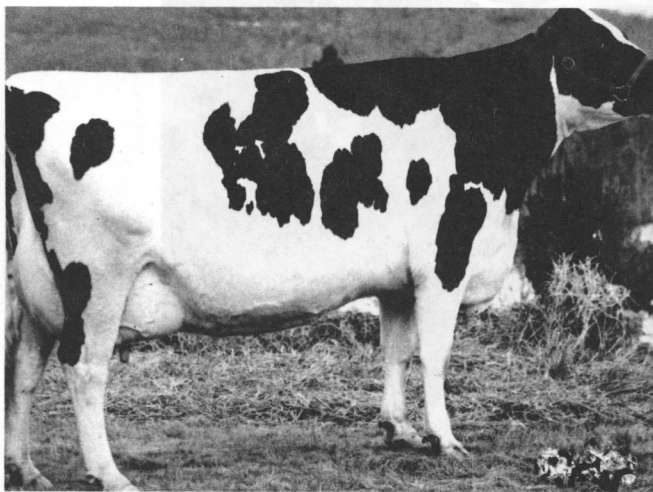
Viewed from the rear, the shoulders should be neatly joined, with the vertebrae clearly defined and above the shoulder blades. The crops should be full and smoothly blended with the shoulders. Viewed from the side and front, the shoulder should be deep and neatly laid in at the point of the shoulder.



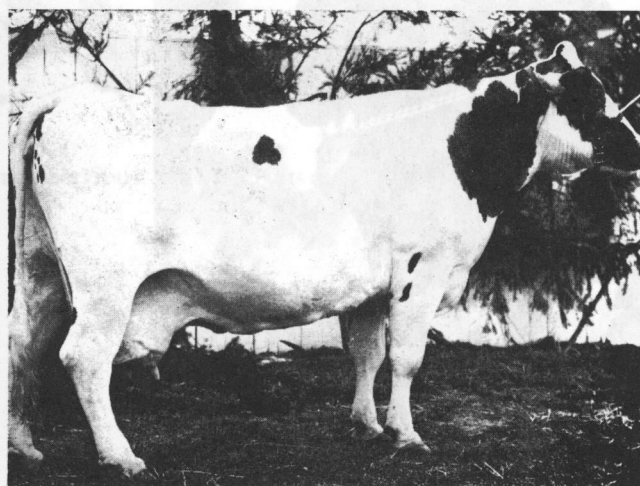
This cow is lacking in dairy character. She is heavy over the withers and open at the top of the shoulders. She is coarse and heavy over the rump. The tailhead is too big and prominent. She is also thick and heavy in the thighs.



This cow is sharp over the withers and full in the crops as viewed from the rear. Note the wide loin and rump. The tailhead is refined and lies neatly between the pin bones.



This cow shows excellent dairy character. Note the sharpness, openness, and lack of excess flesh. The vertebrae are well defined with no excess tissue over the rump, hips, or pins.

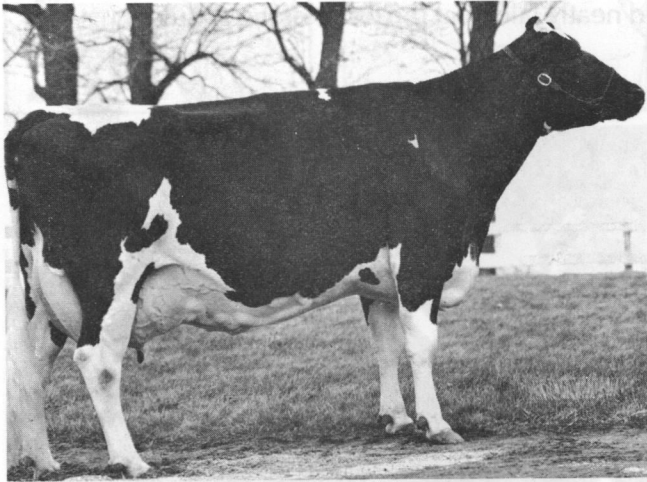


This cow lacks dairyness and openness throughout. She is short and heavy in the neck, tight ribbed, and coarse and patchy over the hips, pins, and tailhead. She is also heavy in the throat, thick in the thighs, and coarse in bone.

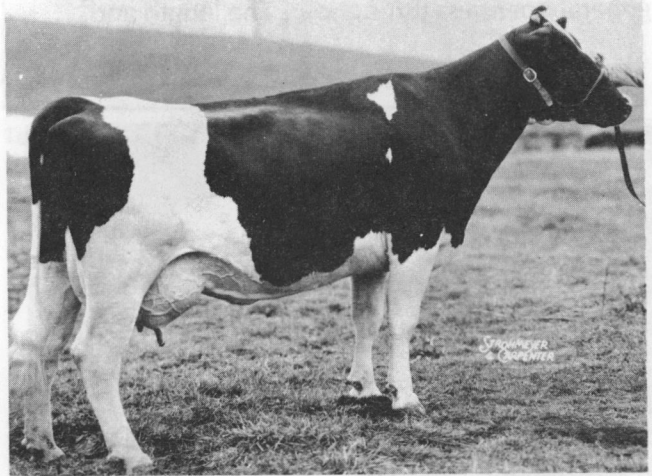
Body capacity

The term body includes the heart girth and barrel. The length of body, plus depth and width as determined by length and spring of ribs, governs

overall body capacity. A large body combined with strength and vigor is associated with the ability to use large quantities of feed, especially forage.



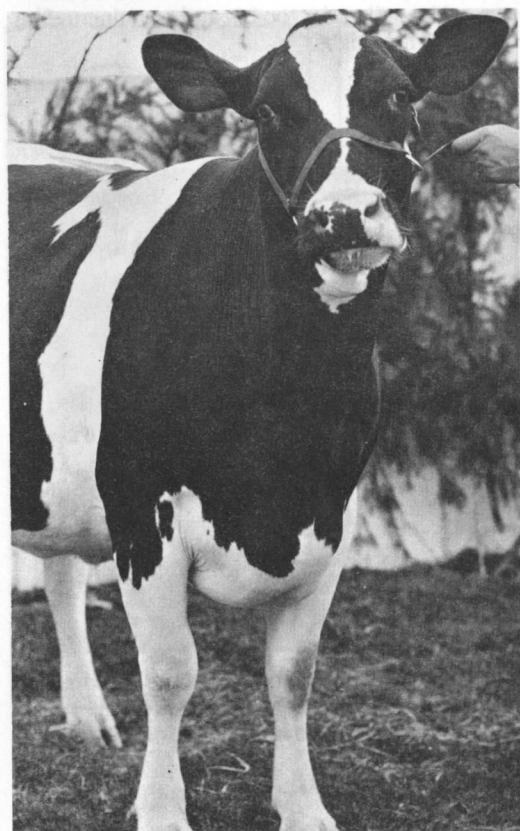
This cow is well balanced with great body capacity. She is a large cow with great depth of foreribs and rear ribs.



This cow is shallow bodied and lacks depth of rear rib and flank. She also lacks in spring of forerib.



This cow stands very close, is narrow in the chest and weak through the heart. Such cows are often frail and lack strength and body capacity.



This cow is wide in the chest, strong in the front, and stands on straight legs. The swollen brisket results from her closeness to calving.



ADGA Standard Dairy Goat Score Card

Perfect Score *Ideals of type and breed characteristics must be considered in using this card.*

1. GENERAL APPEARANCE

30 *(Attractive individuality revealing vigor; femininity with a harmonious blending and correlation of parts; impressive style and attractive carriage; graceful walk.)*

Breed Characteristics

Head—medium in length, clean-cut; broad muzzle with large, open nostrils; lean, strong jaw, full, bright eyes; forehead broad between the eyes; ears medium-sized, alertly carried (except Nubians).

Shoulder blades—set smoothly against the chest wall and withers, forming neat junction with the body.

Back—strong and appearing straight, with vertebrae well defined.

Loin—broad, strong, and nearly level.

Rump—long, wide, and nearly level.

Hips—wide, level with back.

Thurls—wide apart.

Pin bones—wide apart, lower than hips, well defined.

Tail head—slightly above and neatly set between pin bones.

Tail—symmetrical with body.

Legs—wide apart, squarely set, clean-cut and strong with forelegs straight.

Hind legs—nearly perpendicular from hock to pastern. When viewed from behind, legs wide apart and nearly straight. Bone flat and flinty; tendons well defined. Pasterns of medium length, strong, and springy. Hocks cleanly molded.

Feet—short and straight, with deep heel and level sole.

2. MAMMARY SYSTEM

30 *(A capacious, strongly attached, well-carried udder of good quality, indicating heavy production and a long period of usefulness.)*

Udder—long, wide, and capacious, extended well forward, strongly attached.

Rear udder—high and wide. Halves evenly balanced and symmetrical.

Fore udder—carried well forward, tightly attached without pocket, blending smoothly into body.

Texture—soft, pliable, and elastic; free from scar tissue; well-collapsed after milking.

Teats—uniform, of convenient length and size, cylindrical in shape, free from obstructions, well apart, squarely and properly placed, easy to milk.

3. DAIRY CHARACTER

20 *(Animation, angularity, general openness, and freedom from excess tissue, giving due regard to period of lactation.)*

Neck—long and lean, blending smoothly into shoulders and brisket, clean-cut throat.

Withers—well defined and wedge shaped, with the dorsal process of the vertebrae rising slightly above the shoulder blades.

Ribs—wide apart; rib bone wide, flat, and long.

Flank—deep, arched, and refined.

Thighs—incurving to flat from the side; apart when viewed from the rear, providing sufficient room for the udder and its attachments.

Skin—fine textured, loose, and pliable. Hair fine.

4. BODY CAPACITY

20 *(Relatively large in proportion to the size of the animal, providing ample digestive capacity, strength, and vigor.)*

Barrel—deep, strongly supported; ribs wide apart and well sprung; depth and width tending to increase toward rear of barrel.

Heart girth—large, resulting from long, well-sprung foreribs; wide chest floor between the front legs, and fullness at the point of elbow.

100 **Total**

Breed standards

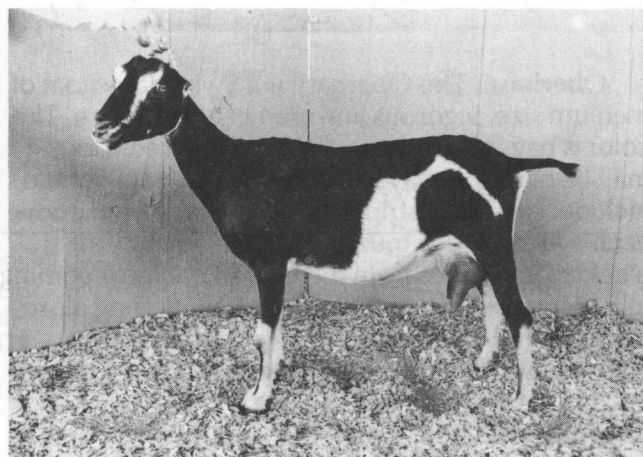
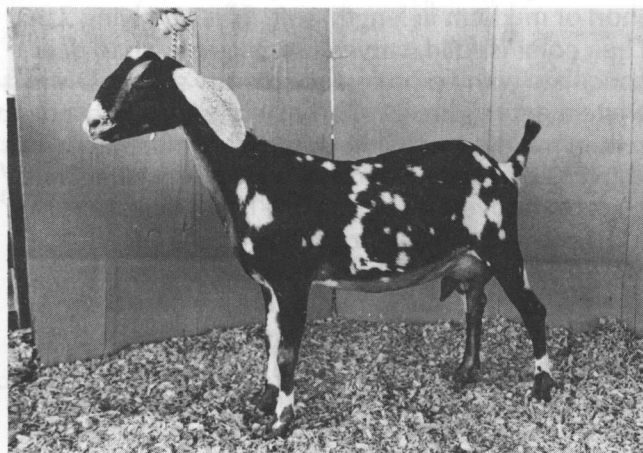
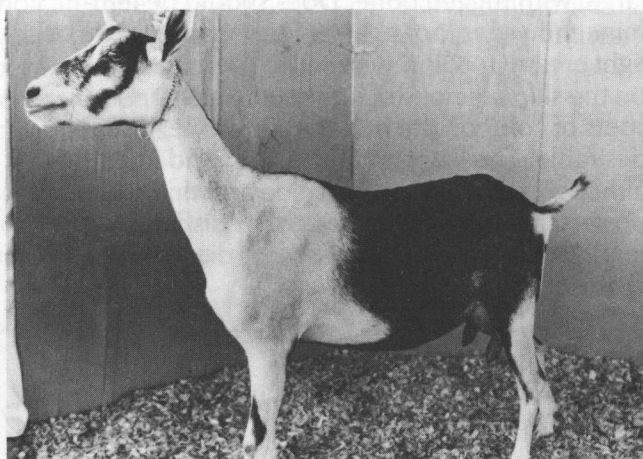
French Alpine. The Alpine dairy goat is a medium to large animal, alertly graceful, and the only breed with upright ears that offers all colors and combination of colors. The hair is medium to short. The face is straight. A roman nose, Toggenburg color and markings, or all-white color is discriminated against.

Nubian. The Nubian is a relatively large and graceful dairy goat. The head is the distinctive breed characteristic, the facial profile between the eyes and the muzzle being strongly convex. The ears are long (extending at least 1 inch beyond the muzzle when held flat along the face), wide, and pendulous. They lie close to the head at the temple and flare slightly out and well forward at the rounded top, forming a "bell" shape. The ears are thin, with the cartilage well defined. The hair is short, fine, and glossy.

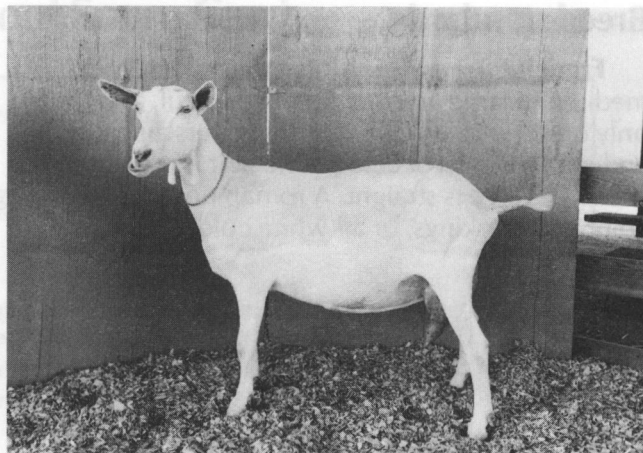
Any color or colors, solid or patterned, are acceptable.

LaMancha. The LaMancha is a relatively new breed of dairy goat. The LaMancha face is straight with the ears being the distinctive breed characteristic. There are two types of American LaMancha ears. In does, one type of ear has no advantage over the other.

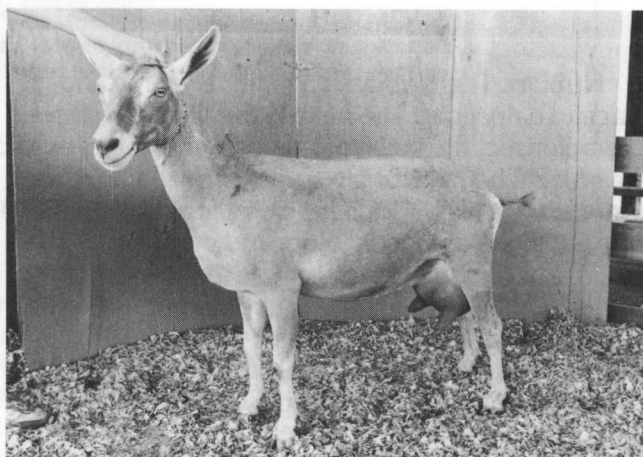
The "gopher ear" has an approximate maximum length of 1 inch, but preferably is nonexistent. Very little or no cartilage. The end of the ear must be turned up or down. This is the only type of ear that will make *bucks* eligible for registration. The "elf ear" has an approximate maximum length of 2 inches, the end of the ear must be turned up or turned down, and cartilage shaping the ear is allowed. Any color or combination of colors is acceptable, with no preferences. The hair is short, fine, and glossy.



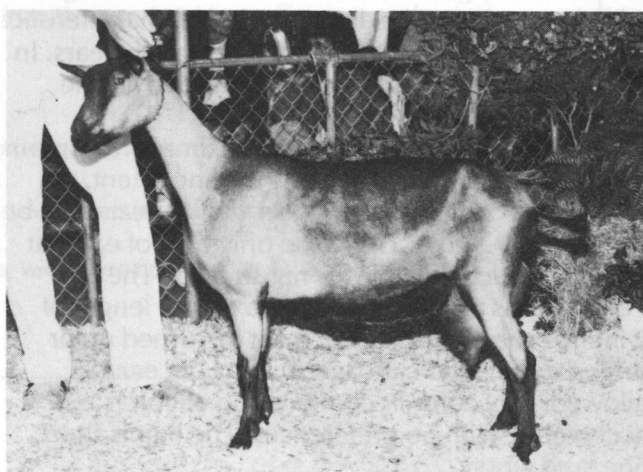
Saanen. The Saanen dairy goat is medium to large, with rugged bone. Does should be feminine, however, not coarse. Saanens are white or light cream in color, with white preferred. Spots on the skin are not discriminated against. Small spots of color on the hair are allowable, but not desirable. The hair should be short and fine, although a fringe over the spine and thighs is often present. Ears should be straight or dished. A tendency toward a roman nose is discriminated against.



Toggenburg. The Toggenburg is of medium size, sturdy, vigorous, and alert in appearance. The hair is short or medium in length, soft, fine, and lying flat. Their color is solid, varying from light fawn to dark chocolate with no preference for any shade. Distinct white markings are as follows: white ears with a dark spot in middle; two white stripes down the face from above each eye to the muzzle; hind legs white from hocks to hooves; forelegs white from knees downward with dark lien (clock) below knee acceptable; a white triangle on either side of the tail; white spot may be present at root of wattles or in that area if no wattles present. Varying degrees of cream markings instead of pure white acceptable, but not desirable. The ears are erect and carried forward. Facial lines may be dished or straight, never roman.



Oberhasli. The Oberhasli is a Swiss dairy goat of medium size, vigorous and alert in appearance. The color is bay, ranging from light to deep red. Does may be black but bay is preferred. Markings should include: two black stripes down the face from above each eye to a black muzzle; forehead nearly all black; black stripes from the base of each ear coming to a point just back of the poll and continuing along the neck and back as a dorsal stripe to the tail; a black belly and udder; black legs below the knees and hocks; and ears black inside and bay outside. The face is straight.



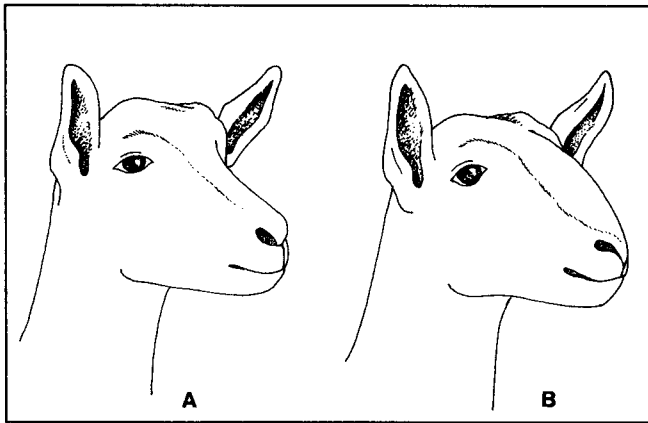
General appearance

Breed characteristics, topline, feet, and legs should be considered in evaluating a dairy goat's general appearance. The animal must be an attractive individual with the harmonious blending of all parts to give impressive style and carriage.

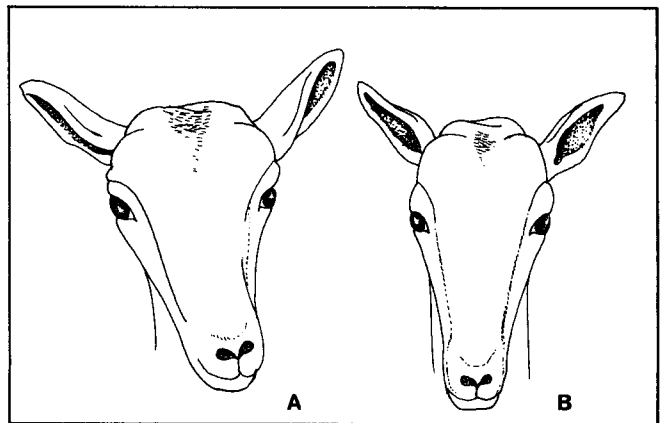
Head and neck. The ideal head is well balanced, of medium length, with a clean-cut, broad muzzle. Large, open nostrils reflect a strong constitution and

a good respiratory system. A lean, strong jaw indicates the strength necessary to consume large quantities of feed. A wide forehead showing fullness between large, bright eyes often signifies good temperament, health, and vigor. Many breed characteristics are evident in the head.

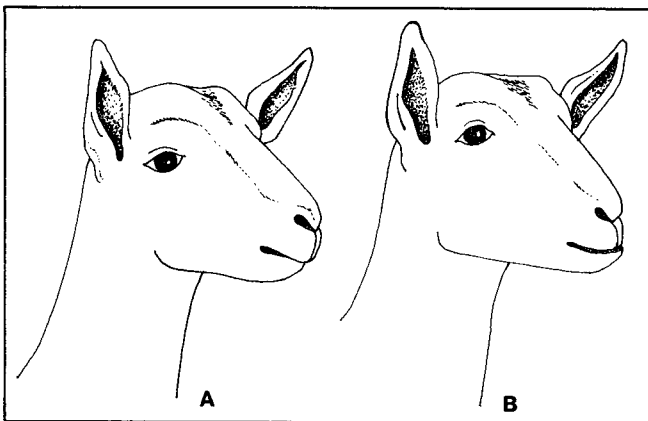
Wattles (short cylindrical appendages), either singly or in a pair, may be present on the neck, throat, or jaw. They appear to be nonfunctional and are of no consequence in evaluation.



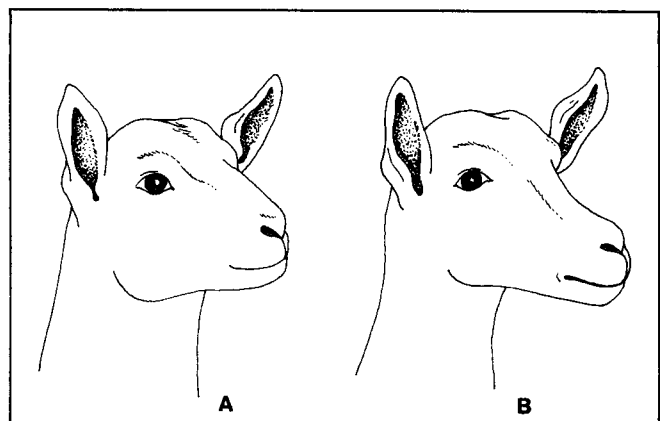
The dish face (A) is considered acceptable in Saanens and Toggenburgs. The nose should be straight, only the forehead curves. The roman nose (B) is considered a fault in all breeds but the Nubian. The Anglo-Nubian should have a full roman nose (see section on breed standards).



The wry face (A) has a twisted or offcenter muzzle which may cause narrowing of the nasal passages and poor tooth alignment. A narrow, weak face and muzzle (B) lacks strength and character. It may display restricted nostrils.



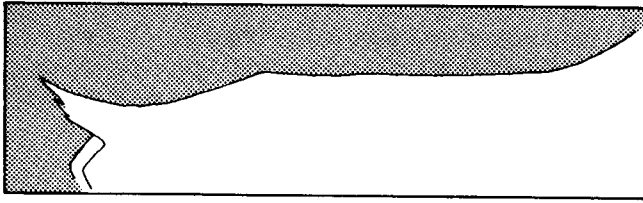
An overshot jaw (A) is a short lower jaw. The lower incisors do not meet the center of the upper dental pad, preventing proper biting and chewing. Food consumption may be limited. An undershot jaw (B) is an excessively long lower jaw. The lower incisors extend beyond the center of the upper dental pad and may interfere with mastication.



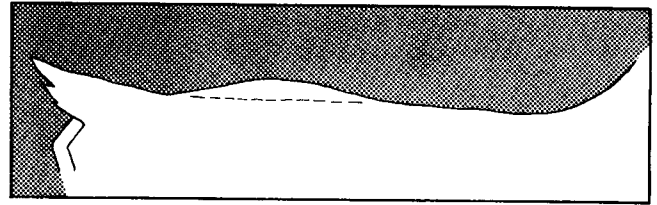
A short, coarse head (A) is a "common" head without dairy character. A pinched face (B) has a narrowed jaw and muzzle that lacks the strength necessary for a lifetime of heavy feedings. Drooping lips indicate slack muscle tone.

Topline. The back and rump are referred to as the topline. The back must be strong since it supports the muscles which carry the weight of the digestive

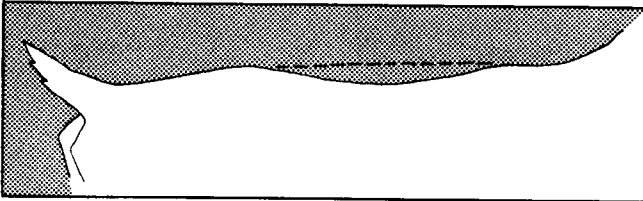
organs and the young during pregnancy. The spinal column protects the vital nerve center within the spinal cord.



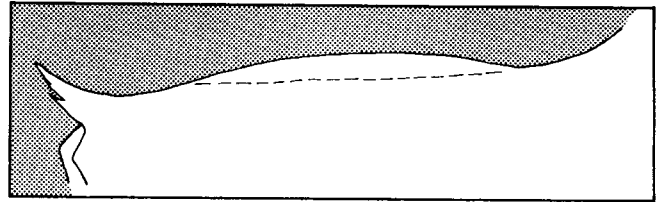
The ideal back is straight and strong with clearly defined vertebrae. The loin should be broad and level.



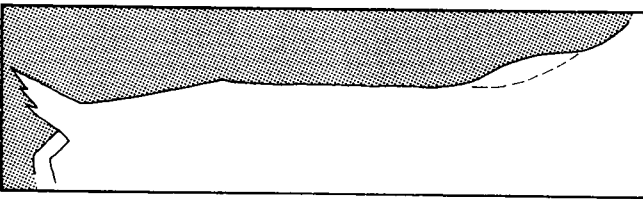
A roached loin may indicate weakness caused by an upward curvature of the spine.



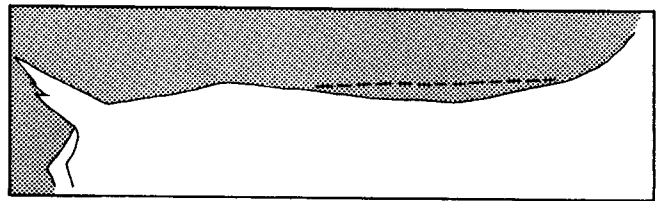
A sway back is the result of a sag at the junction of the chine and loin.



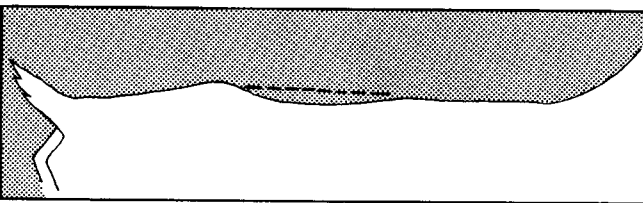
A roached back is caused by vertebrae that bow upward at the junction of the chine and loin.



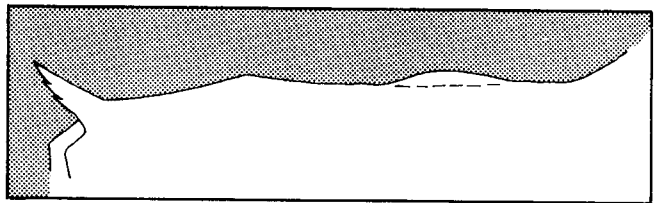
High withers may confuse the novice. When they are high, the back may appear to dip. This may be only an illusion.



A sag in the chine reflects weakness of the spine.



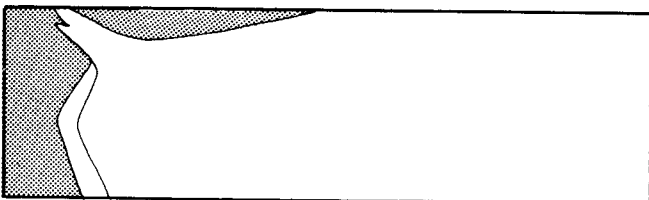
A sag in the loin exerts pressure on the vertebrae and may make a level rump appear raised.



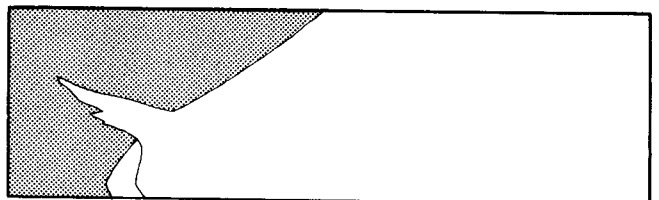
A roached chine is not as serious as a sag but it interferes with the alignment of the vertebrae.

Rump. The length and width of the rump influences the length and width of the udder (see udder attachments), as the rump structure provides

support for the roof of the udder. A rump that is steeply tilted and bound by a narrow pelvic girdle (hips and pins) hinders normal kidding.

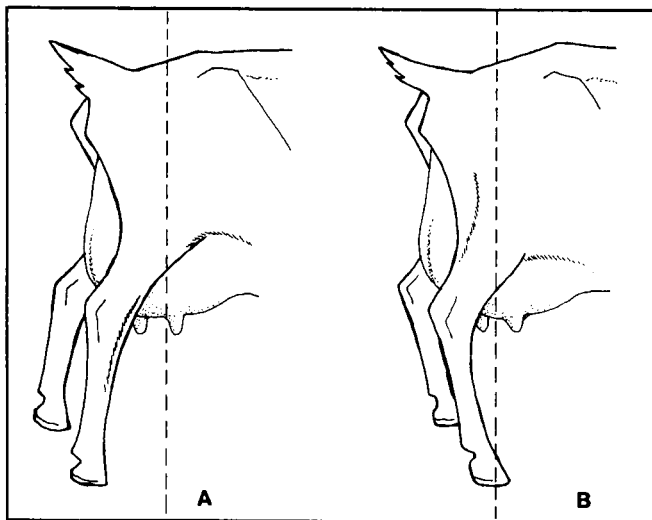


Level rump

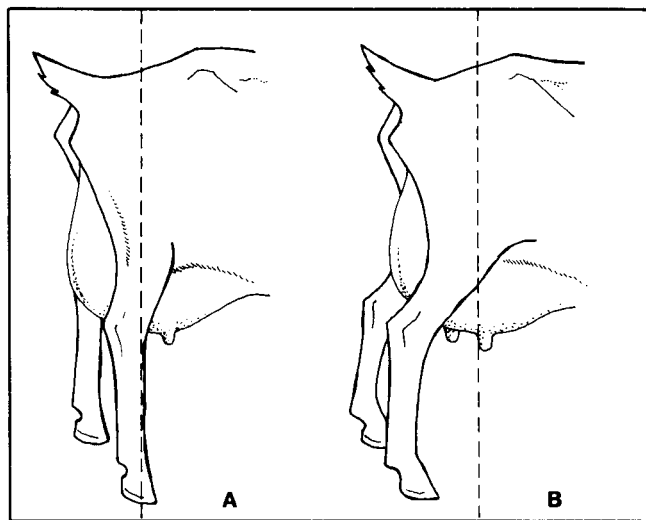


Steep rump

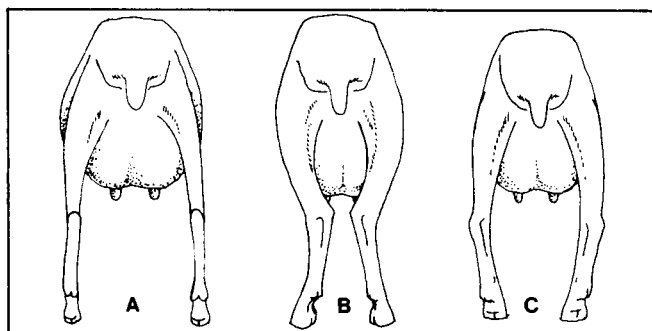
Legs, feet, and pasterns



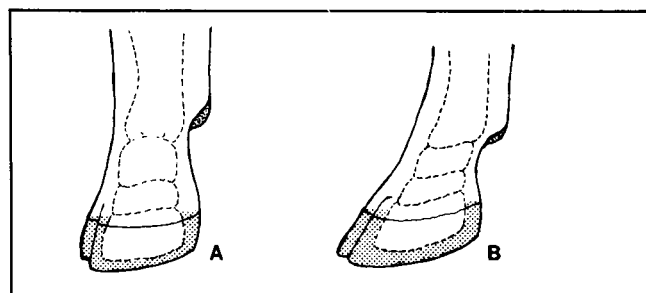
The ideal rear leg (A) when viewed from the side, is nearly perpendicular from the hock to the pastern with an incurving thigh and a cleanly molded hock. The sickle-hocked leg (B) is deeply curved at the hock and thigh joint. This increases strain on the pastern, hip, and back of the heel. The result is a scuffing walk.



Post legs (A) are too straight in the stifle with little or no angulation at the hock and stifle joint. Weak pasterns (B) allow the legs to settle too far towards the rear, exerting pressure on all of the leg muscles.



The ideal set of rear legs (A) will provide ample space for the udder and its attachments. Rear legs that are cow hocked or close at the hock (B) may push the udder forward or force it to hang at a side angle, weakening the rear attachment and increasing the chance of injury. Bow legs (C) set the leg at an awkward angle, adding pressure to the outer hock and pastern.



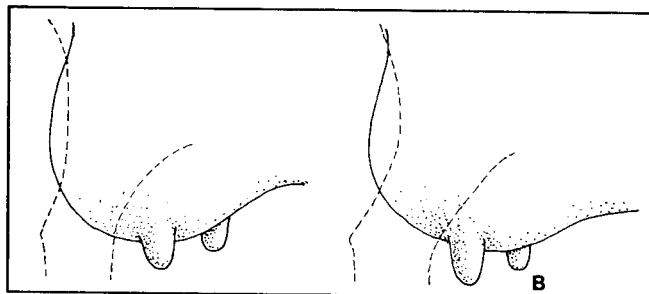
The ideal foot (A) is short and straight with a deep heel and level sole. The ideal pastern is constructed to absorb the shock of weight change. It joins the hoof smoothly, is of medium length, strong, and upright. Weak or poorly formed pasterns (B) force the muscles to maintain balance and alignment. They cause excessive wear at the heel. The toe overgrows and the foot becomes long and flat.

Mammary system

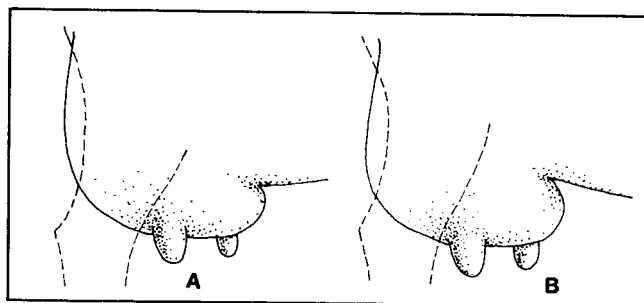
The mammary system is the most important part of a goat. In a close placing, evaluators should rank the dairy goat with the better udder ahead of the goat it is being compared to. The udder should be strongly attached in the front with a high, wide

attachment in the rear. It should not extend below the hock. The teats should be of convenient size for milking and squarely placed on the udder floor. Udder quality is determined by its softness, pliability, and fineness of texture. The accompanying illustrations show the ideal and undesirable traits in the udder.

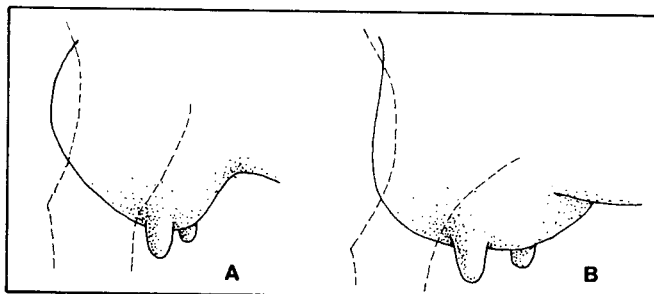
Attachments



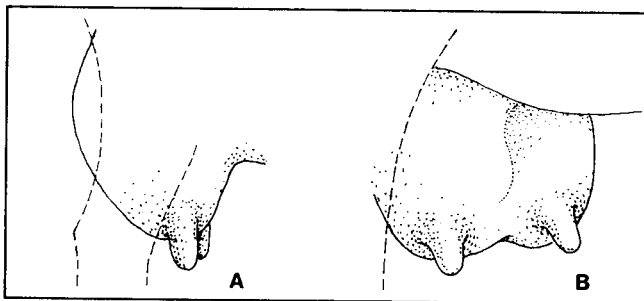
A sloping rear udder floor suggests a loose rear udder attachment (A). The udder may hang too far forward. The ideal fore udder attachment (B) blends smoothly with the body and is securely bound on either side. It slopes gently with a gradual upward curve.



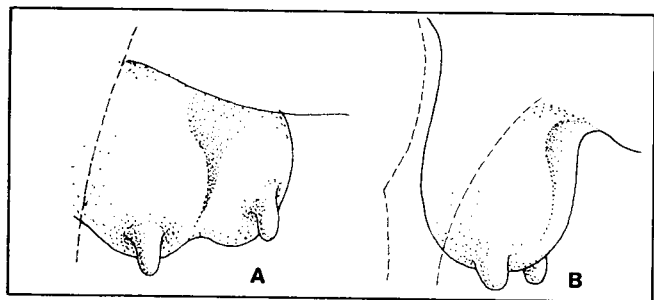
The fore udder that cuts back to its point of attachment (A) places weight forward of its attachments. A bulging fore udder (B) is a symptom of a loose attachment.



A sloping floor in the fore udder suggests a loose or weak fore udder attachment (A). A loose fore udder attachment (B) may occur before the front begins to drop. A groove may be felt between the udder and the body wall.

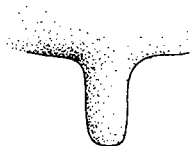


As the fore udder support begins to detach from the body wall, an indentation forms in front of and between the halves of the udder (A). The front of the udder floor will slope downward and the udder may hang too far to the rear (B).



A broken fore udder attachment (A) allows the inner edges of the roof of each gland to shift out and down, creating a "pocket" at the front of the udder. The platelike edges of the udder roof may be seen and felt at sloping angles on either side of the "pocket." The udder that has broken away in all of its attachments (B) will have a short productive life.

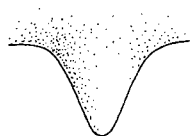
Teats. The size, shape and placement of the teats determines the ease and efficiency of milking. Poorly formed teats are subject to injury and infection.



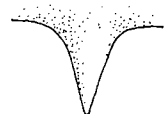
The ideal teats are uniform, of convenient length and size, cylindrical, free from any obstructions, well apart, squarely placed, and easy to milk.



Bottle-shaped teats



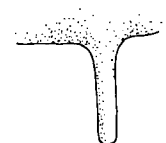
Funnel-shaped teat



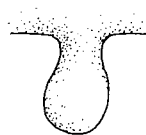
Pointed teats



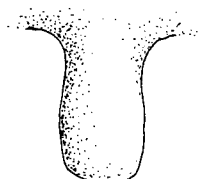
Teats that are not clearly separated from the udder



Pencil-shaped teats



Bulbous teats



Large, thick teats



Very small teats



Teats that are too close together



Teats that point sideways may indicate that the udder's central attachment is weak.

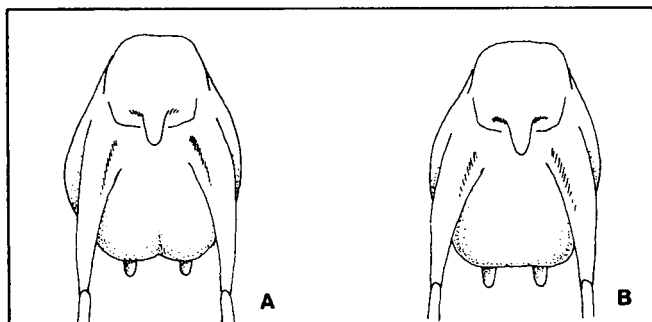


Teats that are uneven in size may present problems during milking.

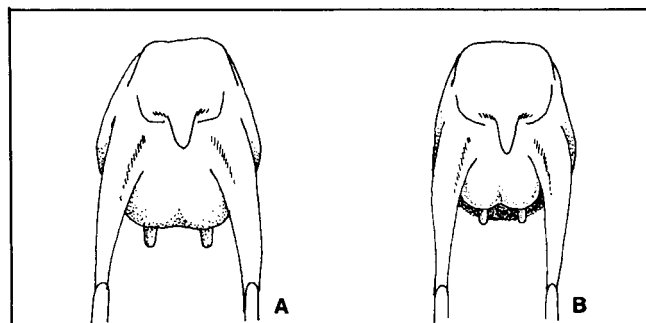
Udder shape. The shape of the udder determines its capacity, area of attachment, and susceptibility to injury.

An unbalanced udder indicates a deficiency and loss of milk yield, and milking is more difficult. A

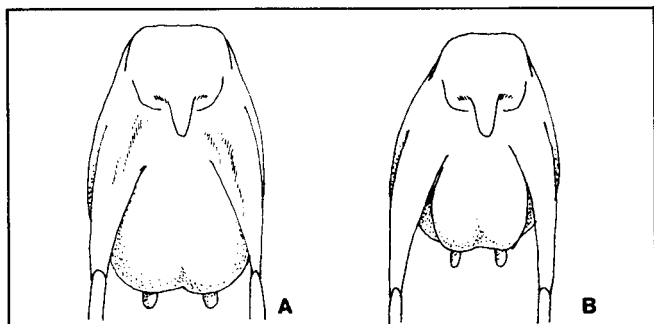
slightly unbalanced udder is acceptable as few udders are perfectly balanced. A seriously unbalanced udder is one that has one side half the size of the other.



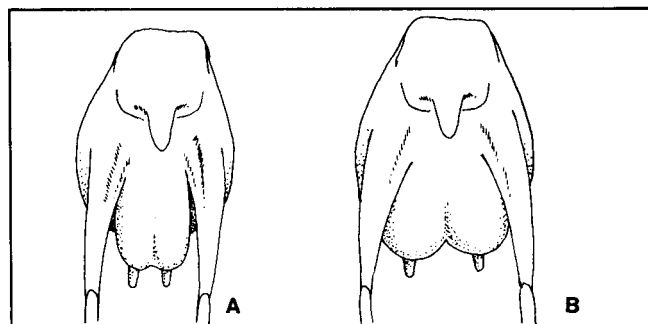
The ideal udder (A) has a slight cleft between the halves to allow for expansion during the first flush of freshening. The ideal rear udder is deep, wide, capacious, and strongly attached. An udder without a cleft (B) or space between the halves could be injured by the mild swelling present before and after freshening.



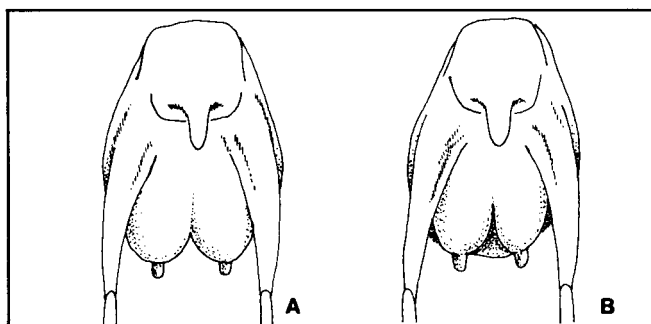
The rear udder that is wide with moderate depth (A) has ample capacity. A shallow rear udder (B) limits production.



The rear udder that is too deep (A), below the hock, is bulky and subject to injury. A moderately wide rear udder (B).



A narrow rear udder (A) reduces the area of attachment and decreases productive capacity. It often accompanies a narrow rump and closely spaced legs. An udder with a moderate cleft (B) reduces capacity.



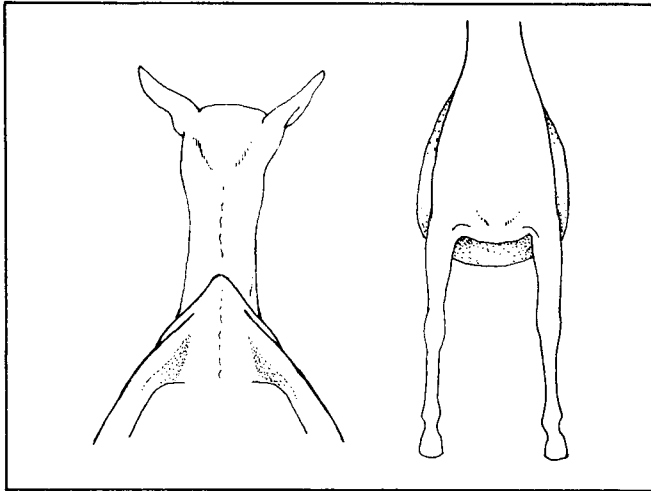
A severe cleft (A). A split, Bologna, or funnel udder (B) reduces the amount of secreting tissue and inconveniences the milker.

Dairy character

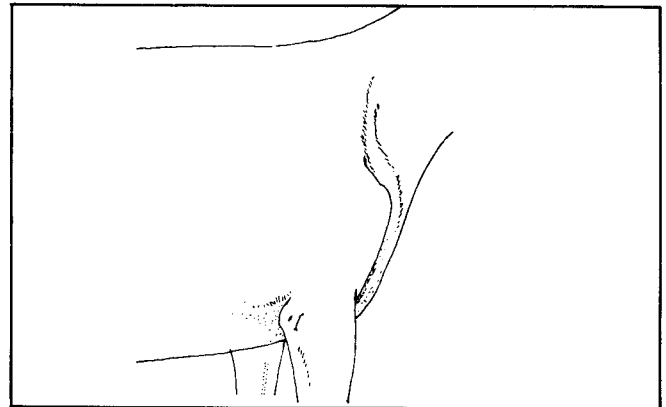
Dairy character indicates the goat economically uses feed to produce milk and butterfat rather than meat or fat. It is expressed by sharpness and cleanness over the shoulder, prominence of hips and pin bones, and flatness of thighs with a general openness throughout. The length and cleanness of neck and flatness of bones are also considered. The skin should be fine textured, loose, and pliable.

The ideal shoulder is set smoothly against the chest well and withers, forming a neat junction with the body. The blade should be long with ample width beginning at the withers and tapering toward

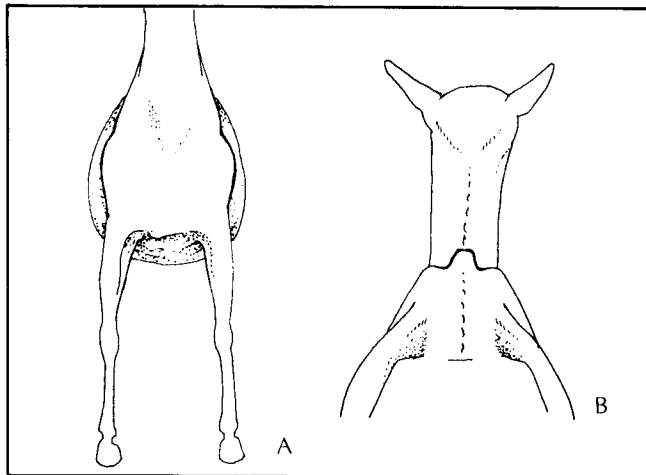
the point. The blade is attached by muscles only. The shoulder has a strong affect on gait and ease of movement as it supports weight, absorbs concussion, and propels the forelegs (see sketch of the musculature of the forelegs). Weak shoulders will cause excessive fatigue in walking and standing, thus shortening productive life. All shoulder faults increase markedly with age. Slight concessions may be given older goats but deviations in young stock should be criticized. The goat should be observed while walking and standing, as laziness or settling of the point may occur when not in motion.



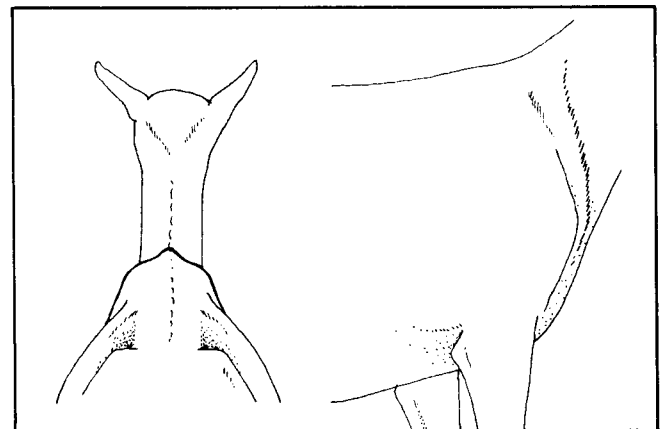
The ideal shoulder blends smoothly.



As the shoulder attachment weakens, the joint of the humerus and blade settles forward, producing a prominent point.



Winged shoulders (A) are the result of a loose shoulder blade attachment. An open or loaded shoulder (B) may be the result of faulty bone structure, poor muscle tone, or excess fat.

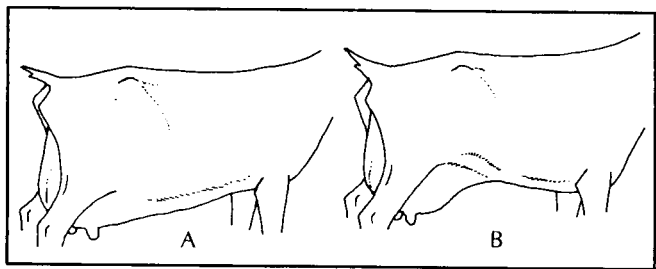


Coarse shoulders may be tightly attached but do not blend well. They indicate a heavy skeleton and poor dairy quality.

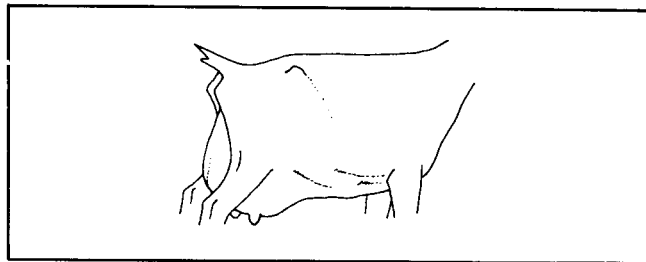
Body capacity

The term body includes the heart girth and barrel. The length of body, plus depth and width as determined by length and spring of ribs, governs

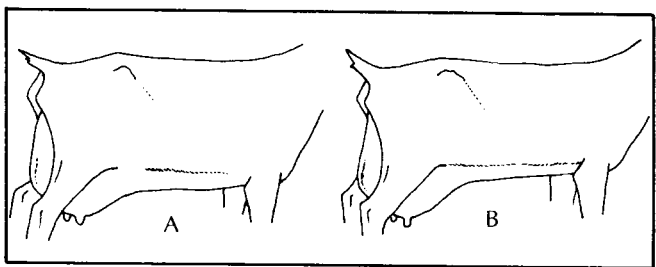
overall body capacity. A large body combined with strength and vigor is associated with the ability to use large quantities of feed, especially forage.



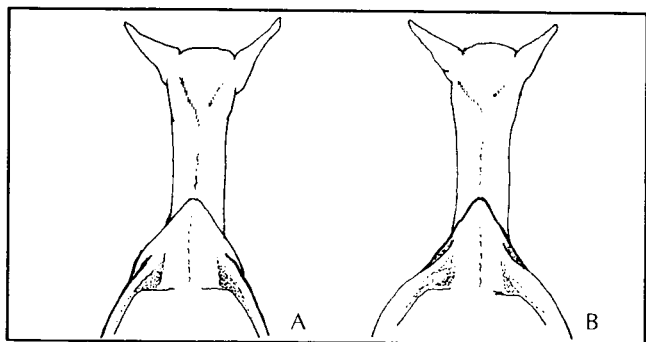
A body with moderate capacity (A) has adequate rib length. A shallow body (B) reduces capacity.



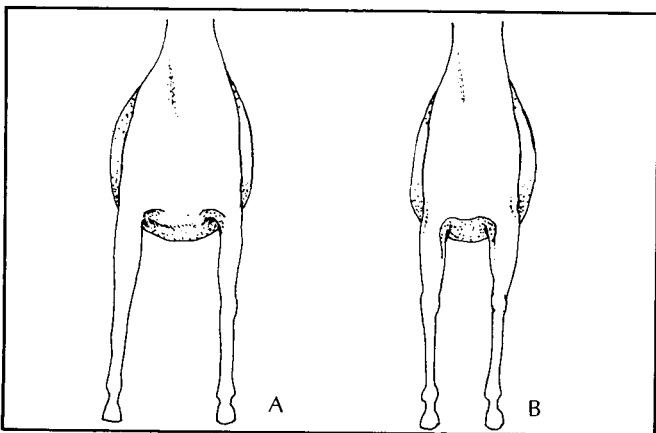
A closely coupled or short body with tight ribbing.



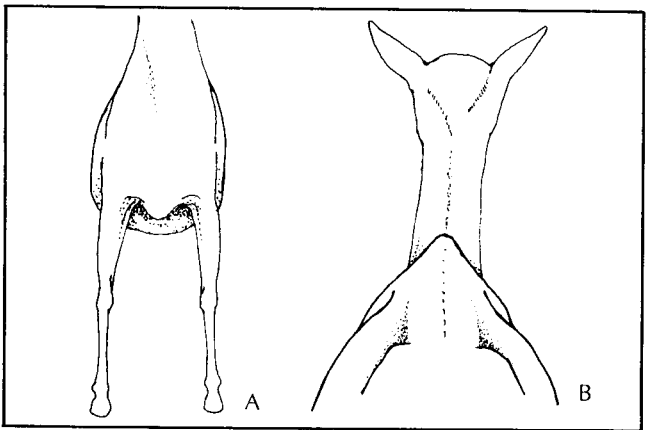
Pinched or short foreribs (A) diminish heart girth. A short forerib creates the illusion of a longer rear rib. A body with short rear ribs (B) may also have a shallow flank.



The flat-sided or slabby body (A) is evident in a rear view. A deficiency in the crops (B), or poorly sprung foreribs, hinders lung action.



The ideal chest (A) is broad and strong with a wide floor and arched foreribs. A pinched narrow chest (B) with slab-sided ribs limits lung capacity and crowds the heart.



A chest floor that slopes steeply upward (A) on either side of the sternum restricts lung capacity. The spring of the ribs is best viewed from the rear (B). The ideal body is deep and wide.

Evaluation and Judging Contests

Evaluating and judging animals is a valuable experience for all boys and girls. Through evaluation and judging, they learn to:

- Research the animal breed.
- Make accurate observations and comparisons.
- Make selection of animals on sound principles.
- Arrive at a conclusion that is a judgement.
- Use good communication skills.

In evaluating animals, judges should apply these principles as they carefully analyze and weigh the points of the animals they are judging against the standard or ideal type. Remember, the 4-H evaluator is making a judgment that may not agree with that of the official judge, and he or she should be able to defend his or her opinion.

Before starting to evaluate livestock, members should try to make a mental picture of the ideal animal. They can do this by recalling the most desirable features of the best animals they have seen, and thinking of them as belonging to one animal. Pictures of ideal animals are available through breed associations.

4-H dairy evaluators should learn all the parts of these animals and be able to identify them. This vocabulary will add useful, understandable livestock terms that will be needed in giving reasons.

When the members master these skills, they are ready to start placing classes.

Procedure for judging

Develop a system as you learn to judge. When you first see a class, get a good comparison of the general appearance of the animals.

You can do this better from a distance of about 25 feet, or far enough away to see all the animals at one time. Become skilled in placing classes from a distance and handle the animals only to check your observations. From this distance, study the class from the rear, the front, and the side.

Using a side view, study size and scale, length of body, length of rump, length and straightness of leg, conformation of udder, skeletal structure, and overall balance.

Using a rear view, observe the width of the top, width of the rump, strength of rear attachment of udder, and an indication of sharpness of body.

Using a front view, check the trimness in the brisket and neck, width of chest, and soundness of the front legs.

The walking view gives you an indication of skeletal structure, as well as strength of back, length, depth, and balance of body, strength and correctness of legs and feet.

Compare the animals with your “ideal” and decide which one is more like the ideal. Then compare each animal with the others. As you compare the animals in the class, look at the same part of all animals. For example, decide which animal has the more correct legs by looking at the legs of all animals. Analyze the class and divide the animals into three pairs: a top pair, a middle pair, and a bottom pair. Your first impression is usually best.

To simplify judging, make the easiest placing first—pick the top animal or the bottom animal or any pair of animals.

Remember, it takes both careful observation and proper handling to do the best job of determining the degree of condition. Study individual animals at close range and handle each one to help you make comparisons of natural fleshing texture of udder and flatness of bone.

If you want to handle the animal, approach from the side and be sure the animal sees you approach. Handle each animal the same way. Excessive handling is not necessary.

When you have completed your visual and handling evaluation, write your notes or reasons.

Learn to study the whole animal carefully, looking especially at the parts that are economically important, and make your placings accordingly. A keen judge of livestock is systematic, never disorganized.

In any contest, *do your own work*. Depend on your own judgment and not that of someone else. If you want other people to have confidence in you, you must have confidence in yourself. You can improve your judging ability only by making your own decisions.

Entering a judging contest

In an evaluation contest, you will judge classes of dairy cattle or goats, and occasionally dairy and other agricultural products.

In most evaluation contests, four animals or products are used in each class. They are numbered 1, 2, 3, 4. Looking at cattle and goats from the rear, number 1 is on the left and number 4 is on the right.

The way you place your animals will influence your score. If you miss one pair or two pairs or make other placing errors, your score is determined in proportion to the seriousness of the error.

In many evaluation activities, you will have the opportunity to give reasons (explain your placings to the judge). The judge will score you on organization, presentation, and accuracy of your reasons. Detailed information on reasons can be found in the "reasons" section of this guide.

In most 4-H Evaluation Contests, you will be given a card for each class. (This card is illustrated, right.)

Fill in the information requested on the judging card (name, address, etc.) and then place a check mark or an X in the box next to the placing you believe to be correct. Be sure each card you turn in is marked. Always follow the instructions of your group leader.

When your group leader asks that cards be turned in, check your placing to be sure your card is marked correctly, and that it is identical to the placing you have in your notes.

Reasons

Evaluators should give reasons to compare the differences in the animals they evaluated. Reasons may be oral or written. The same principles apply to both. Reasons should be impressive, accurate, and sincere. Manner during presentation should be confident. Reasons should be brief; place emphasis on the main points. The prime point evaluators should make is *why* they placed one animal over the other. When comparing two animals, comparative terms are used. An example is: number 4 has a higher, wider rear udder attachment than number 2. Through comparison, they tell "why" one animal is better than another animal. Avoid adjectives like "more" and "better."

Four essentials of speaking. Members should learn these essentials of speaking:

- Have something to say (knowledge).
- Say it as though you mean it (self-assurance).
- Give attention to your appearance.
- Speak slowly and clearly.

Giving reasons orally. When evaluators give reasons orally it teaches them to:

- Think clearly.
- State thoughts precisely.
- Improve their poise and confidence.
- Develop their memory.

No. 12

4-H JUDGING CARD

Name <u>Bill Jones</u>	1234	
	1243	
Address <u>Rt. 1 Box 84</u>	1324	
	1342	
<u>Dairymaid, Ore.</u>	1423	
	1432	
Club <u>Dam & Does</u>	2134	
<u>4-H Club</u>	2143	
Leader <u>Mr. Adams</u>	2314	
	2341	✓
County <u>Benton</u>	2413	
	2431	
Class <u>Holstein Cows</u>	3124	
	3142	
	3214	
	3241	
	3412	
	3421	
Placing score	4123	
	4132	
Reasons score	4213	
	4231	
	4312	
Total score	4321	

OSU 3315

Eye contact. Dairy evaluators in contests should look the judge straight in the eye when giving oral reasons. Eyes are most useful in telling your meaning. They help you keep the interest of the person or audience to whom you are speaking.

Visualize animals. Members are less likely to forget their reasons if they visualize the animals in their mind. Reasons should not be memorized. However, evaluators should train themselves to hold a mental picture of the animals and remember the strong and weak points of each.

Organizing reasons. The organization of reasons is determined by how easily the evaluator can place the class. There are many different systems of organizing reasons. The system presented here is logical and easily understood. Listed below is a basic outline for a set of reasons, followed by comments on specific topics.

Outline for a set of reasons

In giving reasons (written or oral), a class of four animals is divided into three pairs: a top pair, a middle pair, and a bottom pair. The basic outline for an entire set of reasons for placing of 4-1-2-3 is as follows:

1. Give name of class and how you placed it.

Top pair

2. Reasons for placing 4 over 1.
3. Advantages of 1 over 4 (if there are any).

Middle pair

4. Reasons for placing 1 over 2.
5. Advantages of 2 over 1 (if there are any).

Bottom pair

6. Reasons for placing 2 over 3.
7. Advantages of 3 over 2 (if there are any).

Concluding statement

8. Reasons for placing 3 last.

Making notes

Good evaluators will mentally visualize a class of animals. Notes of what was observed are helpful in remembering each animal in the class.

Evaluators should make short, simple notes using comparative terms, listing main points of comparison first, then adding details of each pair.

A useful way for evaluators to take notes is shown below.

Notes may be taken on cards or on note paper. Put the name of the class at the top. List your placing next. Make a note of one or two characteristics of each animal to help you remember it. Follow this with your placing using fractions for the top, middle, and bottom pairs. For example, if your placing is 4-1-2-3, the fraction 4/1 shows that 4 is placed over 1. The fraction 1/4 would indicate the advantage of 1 over 4 even though you placed 4 higher. There might be additional points about an animal you wish to mention, so note them.

A sample 4-H Reasons Card is shown on page 28. Comparative phrases should be used on this card, then incorporated into complete sentences for the oral presentation.

Livestock Judging Notes

Class: Holstein Cows

Placing: 4-1-2-3

1. Black Cow
2. Large Cow
3. White Cow
4. Best Udder Cow

4/1 Udder —higher attached
—wider in rear
—more surface veins
—capacity
Body —larger
—greater length of body
—more overall dairy quality
—greater angularity and sharpness

Advantages: 1/4

Leg —cleaner about the hocks
—greater circumference
—straighter pasterns

1/2 Udder —deeper, higher capacity
Body —smoother topline and rump
—greater width between hooks and thurls
Legs —straighter legs

Advantages:

2/1 more dairy-like
taller height and wider rear udder
2/3 more desirable breed character
higher general quality
greater capacity of udder
balanced udder
broader/stronger attached rear udder

Criticisms of 3:

Lack of quality/capacity
slightly better than average udder
smallest in class
shallow body

4-H REASONS CARD

Contestant's name or number 12

CLUB Dam # Does COUNTY Benton

CLASS Holstein Cows GRADE 8

PLACING: First 4
Second 1
Third 2
Fourth 3

Placing score	
Reason score	
Total	

REASONS (list only main points):

I place 4 over 1 because:
4 has higher, wider rear udder attachment; more udder capacity; greater angularity and sharpness.

Advantage: 1 over 4 - stronger pasterns - greater depth of heel

I place 1 over 2 because:
1 over 2; greater length and strength of topline; greater body capacity; stronger pasterns.

(OVER)

higher capacity udder
Advantage: 2 over 1 -
fuller through the crops,
smoother shoulder

I place 2 over 3 because:
2 over 3; more up standing,
greater udder capacity,
stronger fore udder
attachment, greater width of
rump and width through pin
bones, more spring of rib and
flatness of bone showing
dairy character.

I place 3 last because:
3 lacks size and body
capacity, lacks strength
of top line; fore udder
attachment weak and
body shallow.

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Presenting reasons

Oral. In giving oral reasons the member's opening statement should be "I placed this class of Holstein Cows 4, 1, 2, 3."

The second step in giving oral reasons is to give a comparative presentation of the placings as follows: "I place 4 over 1 because 4 has a higher, wider, rear udder attachment. The udder is showing more capacity. The number 4 cow has greater angularity and sharpness, showing more dairy character than the number 1 cow."

"Number 1 has an advantage over number 4 in that she is stronger in her pasterns and shows greater depth of heel."

"I place 1 over 2 as 1 has greater length and strength of topline. She shows greater body capacity as seen in her greater depth of heart girth and spring

of rib. Number 1 also has an advantage over 2 in feet and legs as evidence of the strength of her pasterns, and she has a higher udder capacity.

"I placed the number 2 cow over number 3 because number 2 is more upstanding, has greater udder capacity, and is much stronger in the fore udder attachment. The number 2 cow shows greater width of rump and more width through the pin bones.

"I place number 3 last because she lacks size and body capacity, and lacks the strength of topline. Her fore udder attachment is weak and body is shallow. For these reasons, I find number 3 is an easy bottom in this class. Even though 3 is last, I do commend her for having cleanly molded hocks."

Notice in the above example that short, complete, clear sentences are used. First-year members should use short sentences rather than

phrases; but for descriptive reasons, phrases will do more to build a mental image. A principle to keep in mind is if a statement isn't grammatical, it isn't correct in a set of reasons.

Written. When writing reasons, members should follow the same basic idea as outlined for oral reasons, remembering the following points:

- Write or print neatly.
- Use short, complete sentences or phrases.
- Spell words correctly.
- Bring a clipboard and pencil to the contest. Pencils allow corrections and a clipboard is handy to hold cards and use while writing.

Evaluating reasons. How good are your reasons? The value of your reasons will be determined by:

Content. What did you say?

Accuracy. Be truthful and accurate. Inaccurate statements have no place in reasons.

Emphasis. Stress the major differences more than the lesser ones.

Comparison. Always compare animals to each other.

Completeness. Bring out all major differences in your reasons.

Terms. Use correct terms. Improper terms weaken reasons.

Delivery. Organize your reasons in an easy-to-follow, logical order. Use eye contact and tell your reasons in a pleasing, confident, clear voice.

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