







External Anatomy Identification

A. Cattle

1. Rump- part of animal between the loin and tail.
2. Round- the muscled portion of the rear leg.
3. Loin- the muscled portion along the backbone of the animal.
4. Shoulder- the muscled portion between the neck and ribs of the animal.
5. Brisket- muscled portion between the front legs of the animal.
6. Switch- the hair at the bottom of the tail.
7. Poll- the top of the animal's head.
8. Flank- the pelvic region of the animal.
9. Hock- the part of the rear leg that corresponds to the knee, but bends the other direction.
10. Ribs- the side section of the animal between the belly and top of the animal.
11. Heart girth- the area that encircles the animal's body just behind the front legs.
12. Pin bones- bones on each side of the tailhead.

B. Swine

1. Ham- rear leg of animal.
2. Loin- the muscled portion along the backbone of the animal.
3. Shoulder- the muscled portion between the neck and ribs of the animal.
4. Rump- part of animal between the loin and tail.
5. Ribs- the side section of the animal between the belly and top of the animal.
6. Jowl- the chin area.
7. Pastern- the part of the animal's leg between the fetlock and hoof.
8. Side- the section between the belly and the top of the hog. Includes the ribs.
9. Belly- the underside of the animal.
10. Hock- the part of the rear leg that corresponds to the knee, but bends the other direction.

C. Poultry External Anatomy

1. Comb- the red structure on top of the bird's head.
2. Wattles- the fleshy structures on each side of the head just below the beak.
3. Beak- pointed structure on the front of the bird's face. Gathers the food.
4. Eye Ring- the ring of color that surrounds the eye.
5. Ear Lobe- the slightly thickened tissue just below the ear opening.
6. Vent- external opening at the back of the bird.
7. Hock- corresponds to the knee of the human.
8. Shank- the leg of the animal.
9. Toes- the structures at the bottom of the bird's foot.
10. Breast- the muscled portion at the front of the animal along the breastbone.
11. Back- flattened area behind the head of the animal.
12. Abdomen- the front of the bird.
13. Body- the area on the side of the bird.

Broiler (birds that you eat) Breeder Conformation Selection

- A. Live birds are evaluated by assessing deformities, body confirmation and breast meat quantity. These birds are classified as either keep or cull animals to improve the overall flock traits that are passed on to their offspring.
- B. Producers should have the bird stand and move to accurately assess traits and characteristics the bird carries.
- C. Body Conformation- refers to the bird's structure and includes factors such as: width across the shoulder, length of the back, depth of body, spring of rib and width of keel.
- D. Deformities- refer to traits the birds carry that will cause them to be culled from the flock to prevent undesirable characteristics in future generations of birds.
Common deformities include:
 - 1. Severely crooked toes.
 - 2. Leg and foot abnormalities.
 - 3. Crossed beak.
 - 4. Severely crooked back.
- E. Breast Meat Quantity- closely related to body conformation. Refers to amount of meat the bird carries. Producers measure the length, width, depth and how the muscle is carried on the bird. When evaluating birds, raise the bird and ask the animal to walk in order to evaluate legs, feet and toes.

Beef and Swine Livestock Evaluation

A. Livestock producers use visual observations to:

1. Select breeding cattle or swine based on conformation, breed character, structural soundness of feet and legs, and body capacity.
2. Select market animals based on muscle, frame size, body capacity, finish and structural soundness.

B. Anatomy- the science of body structure or parts of an animal. External anatomy terms are used to classify animals.

C. Conformation- the physical arrangement of bone and body tissue. It includes the skeletal structure, muscling, fat balance, straightness of the animal's lines and structural soundness.

D. Breed Character- visible in the head and general appearance of the animal.

E. Muscle- refers to the distribution of muscle throughout the animal. Well muscled animals will show fullness through the back, loin and rump.

F. Finish- refers to the amount of fat cover on an animal.

G. Structural Soundness- the arrangement of bone and muscle tissue. The legs of animal should be long and straight and have adequate bone and foot to carry the animal throughout its life span.

Beef and Swine Livestock Evaluation

- H. Body Capacity- the depth of rib the animal displays. Typically analyzed from the side view of the animal.
- I. Frame Size- the length and size of the animal. Used to compare animals that are of similar age to indicate growth and breeding potential. Frame should be proportional to muscle development.
- J. Livestock animals are compared to other animals of similar breed, age and sex to determine their ability to produce high quality beef or pork.
- K. Producers use these traits to select animals that carry desirable traits and cull (remove) animals that display poor traits and qualities.
- L. Animals that display undesirable traits should not be used for breeding purposes.
- M. Producers typically use additional data tools such as Average Daily Gain and Expected Progeny Differences to analyze breeding animals.