

**Kentucky 4-H Poultry Judging Contest**  
**Market Poultry Division**



**Ready-to-Cook Poultry Parts Identification**

*Jacquie Jacob and Tony Pescatore, Animal and Food Sciences*

**Revisions to the Market Poultry Division**

In 2021, major revisions were made to the market poultry division of the 4-H poultry judging contest. The market poultry division now includes one class each of:

- ready-to-cook broiler carcasses to grade
- ready-to-cook roaster carcasses to grade
- parts identification
- parts grading
- further processed boneless poultry products

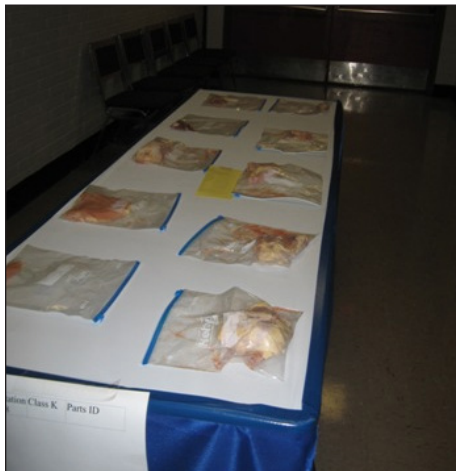
Each class is worth 100 points, for a total of 500 possible points for the division. This factsheet will cover the evaluation of further processed poultry products.

This factsheet specifically looks at the 24 possible parts that will be selected from for use in the contest. This is an increase from the 17 possible parts in previous years.

**Parts Identification**

In the 4-H poultry judging contest the ten parts are displayed in numbered individual plastic bags (see Figure 1). Participants cannot touch the bags or parts in any way.

The names for the possible parts are listed on the score card (see Figure 2). Participants are required to mark the number of the part next to the correct name for the part.



**Figure 1.** Layout for the parts identification class of the Kentucky 4-H Poultry Judging Contest.

Contestant number:     J-12      
 Name:     ROSLYN DOE      
 County:     Lawrence    

**KENTUCKY 4-H  
POULTRY JUDGING EVENT**

**CLASS E: Identification of RTC parts**  
 Directions: Match the poultry part with the correct term. Place the number of the part in the box next to the proper term for that part.

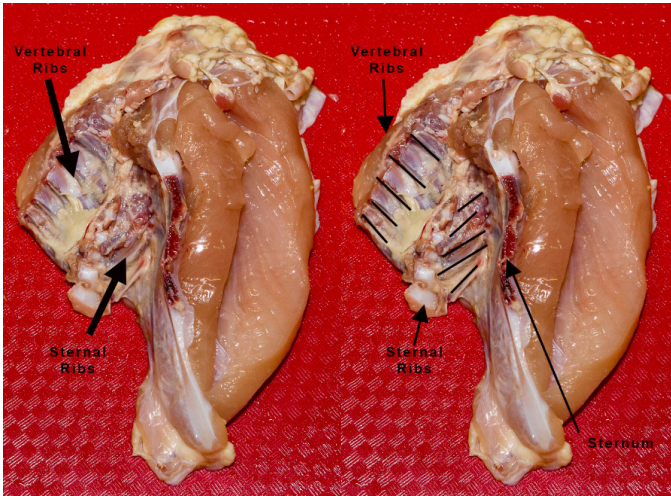
No.	Part
2	Whole breast
	Breast with ribs
	Breast quarter
5	Breast quarter without wing
	Split breast
	Boneless breast
6	Boneless split breast
10	Tenderloin
	Leg quarter
9	Whole leg
	Thigh with back
3	Thigh
	Boneless thigh
7	Drumstick
	Boneless drumstick
1	Whole wing
	Wing drumette
	Wing flat
	Back
4	Neck
	Paws
	Gizzard
	Liver
8	Heart

Number correct x 10 = \_\_\_\_\_  
 TOTAL SCORE: \_\_\_\_\_/100

**Figure 2.** Example of a properly filled out score card for the parts identification class of the 4-H poultry judging contest.

## Breast Parts

Breast meat is the most valuable part of the chicken carcass. Breast meat is considered white meat. There are eight possible breast parts in the contest. It is important to understand the difference between the sternal and vertebral ribs (see Figure 3). The sternal ribs are those that are attached to the sternum (breastbone) while the vertebral ribs are those attached to the vertebrae of the backbone.



**Figure 3.** Anatomical reference for the location of the two types of ribs: the vertebral ribs (attached to the back) and the sternal ribs (attached to the sternum).

## Breast with Ribs

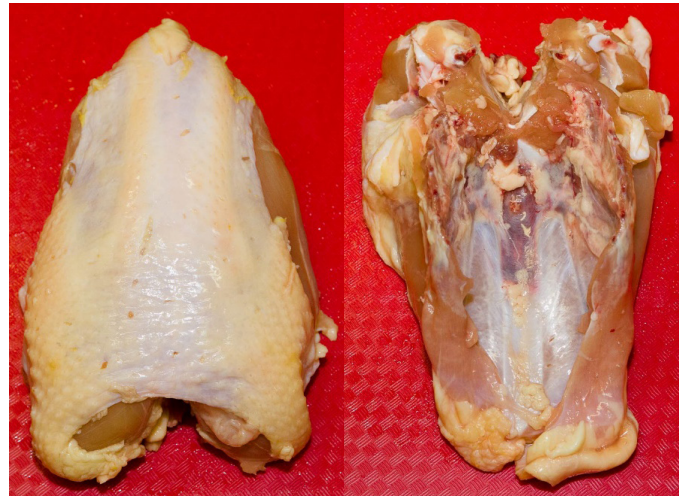
The breast with ribs is the intact breast separated from the backbone at the juncture with the back. In this case, the entire rib cage (both sternal and vertebral ribs) is attached to the breast. It may be displayed with the skin up or skin down (see Figure 5). The difference between the whole breast and the breast with ribs is the presence of the vertebral ribs. The vertebral ribs make the breast sit more off the table, especially when the part is viewed from the side.



**Figure 5.** Breast with ribs shown skin side up and skin side down.

## Whole Breast

The whole breast is the intact breast separated from the remainder of the chicken at the junction of the vertebral and sternal ribs. The sternal ribs remain attached to the sternum, but the vertebral ribs are not present. The whole breast can be displayed skin up or skin down (see Figure 4).



**Figure 4.** Whole breast displayed skin side up and skin side down.

## Breast Quarter

If the whole chicken is cut in half lengthwise and then the breast portion split down the middle, you get two breast quarters. The breast quarter is half the breast with the wing and the back portion attached. Other than the whole wing, the breast quarter is the only part with the wing attached. The part can be displayed skin side up or skin side down (see Figure 6). When displayed skin side down it is important to identify the wing to distinguish this part from the breast quarter without wing.



**Figure 6.** Breast quarter displayed skin side up and skin side down.

### Breast Quarter without Wing

As the name implies, the breast quarter without wing is simply the breast quarter with the wing removed. The breast quarter is half the breast with the wing and the back portion attached. It can be displayed skin side up or skin side down. When displayed skin side down it is important to make sure that the wing is not present. The absence of the wing is the only that that is different between a breast quarter and a breast quarter without wing.

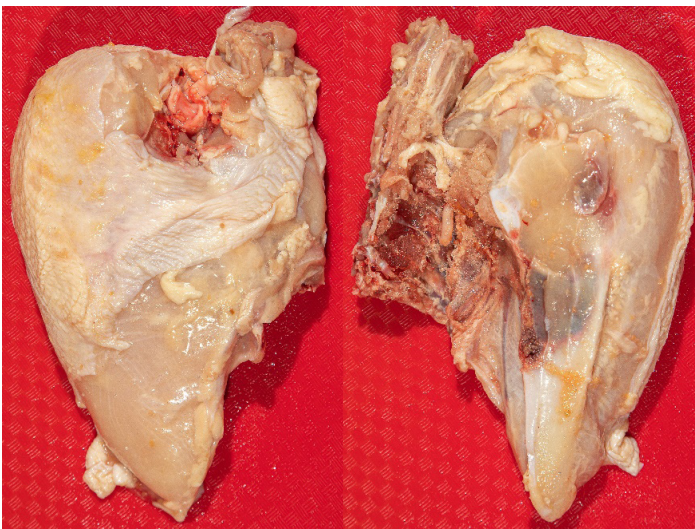
### Split Breast (with or without Ribs)

The split breast is the whole breast (see Figure 8), or the breast with ribs (see Figure 9), cut in half parallel to the breastbone. This creates two halves of the initial breast part. In the 4-H poultry judging contest, the split breast

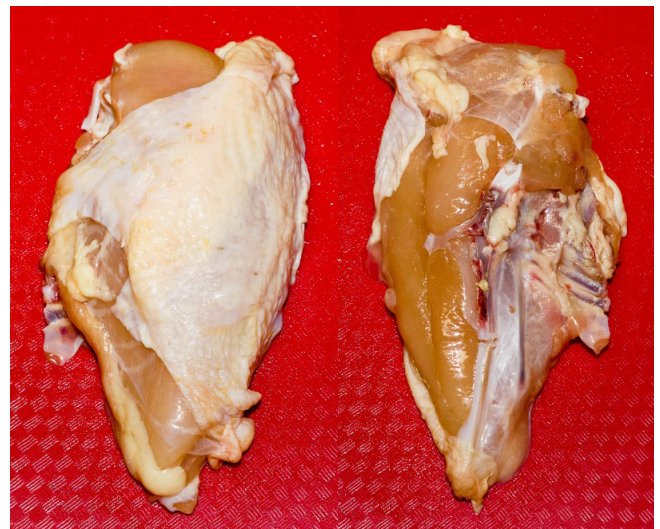
and split breast with ribs are considered the same part – simply split breast. A split breast with ribs can often be mistaken for the breast quarter without wing. The difference between these two parts is the presence of the back portion in the breast quarter without wing. No back portion is present in the split breast with ribs. One or both halves may be displayed.

### Boneless Breast

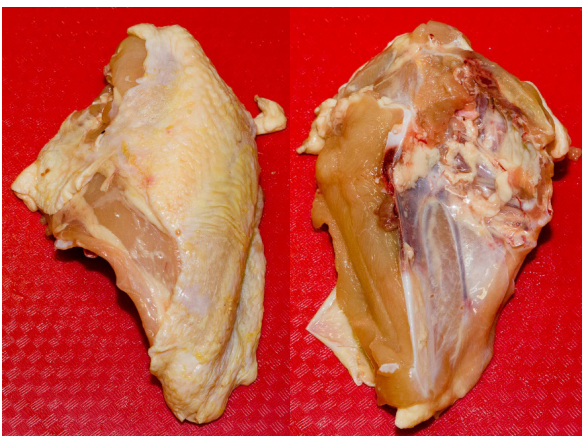
The boneless breast is the whole breast with the bones removed. Part can be displayed with or without the skin attached. When the skin is removed it is easier to see that the part is boneless. When the skin is still attached, as in Figure 10, there is no definition to the breast because the keel bone is absent.



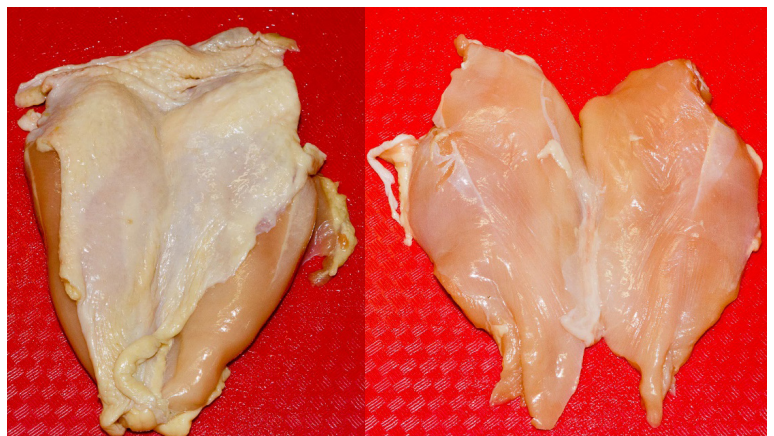
**Figure 7.** Breast quarter without wing displayed skin side up.



**Figure 8.** Split breast without ribs displayed skin side up and skin side down. Note that only the sternal ribs are present.



**Figure 9.** Split breast with ribs displayed skin side up and skin side down. Note that both the sternal and vertebral ribs, but not the back, is present. If the back is present, it would actually be a breast quarter without wing.



**Figure 10.** The boneless breast displayed with the skin attached (left) and removed (right).

## Boneless Split Breast

The boneless split breast is a half breast with the bones removed. The skin can be attached or removed. When the skin is attached, it can be displayed skin side up or skin side down (see Figure 11).

## Tenderloin

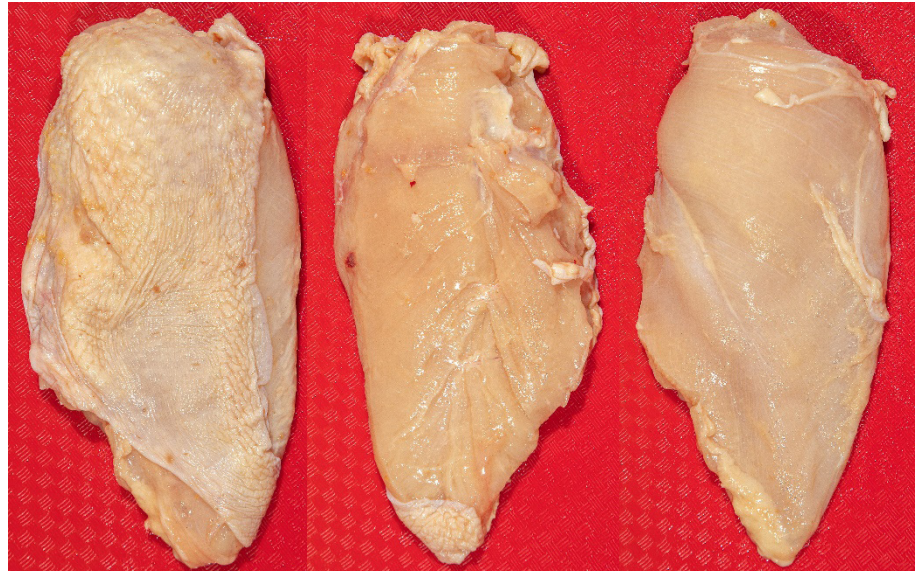
There are two pairs of breast muscles – the outer pectoralis major (boneless split breast) and the inner pectoralis minor (tenderloin). The tenderloin is the inner pectoral (breast) muscle that lies against the sternum (keel bone) (see Figure 12). It is the long slender muscle that is removed from the inner portion of the breast meat (see Figure 13).

## Leg Parts

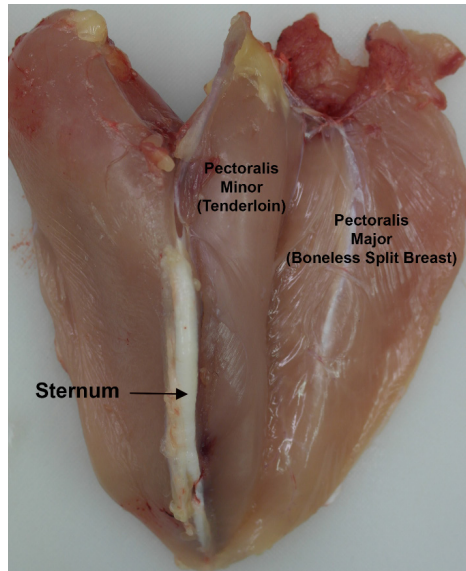
The leg meat is considered dark meat. There are seven possible parts with leg meat that can be used in the contest.

## Leg Quarter

If a chicken carcass is cut down the middle into two halves, and then the leg portion removed from the breast portion, you end up with quarters – the breast quarter which was already discussed and the leg quarter. The leg quarter is made up of the thigh and drumstick with a portion of the back attached. The tail may or may not be present. The part can be displayed skin side up or skin side down (see Figure 14). When displayed skin side down the back portion is more clearly visible.



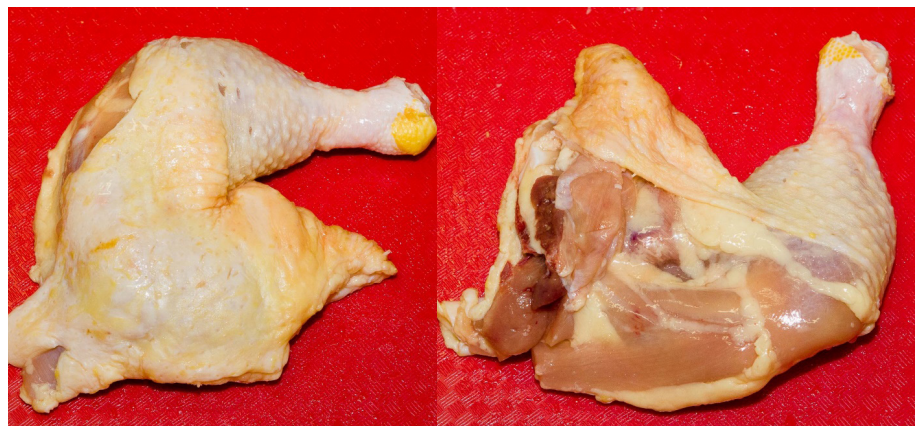
**Figure 11.** Boneless split breast skin side up (left) and skin side down (middle) and boneless split breast skin side up but with skin removed (right).



**Figure 12.** Anatomical reference for the location of the breast tenderloin.



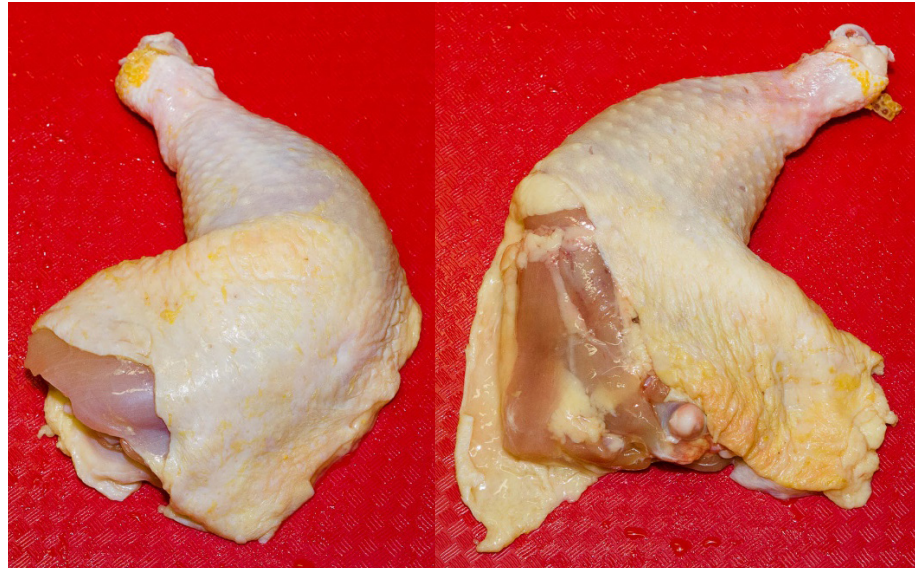
**Figure 13.** Breast tenderloins.



**Figure 14.** Leg quarter displayed skin side up and skin side down.

## Whole leg

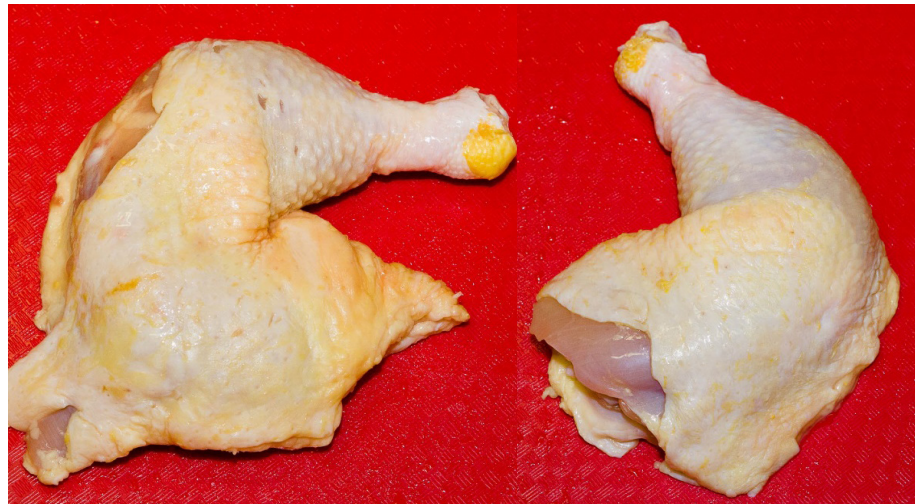
The whole leg is the thigh and drumstick without the back portion. The ribeye muscle or 'oyster' may be attached. The oyster is the piece of meat on the back that lies just in front of the hip joint. The part can be displayed skin side up or skin side down (see Figure 15). When displayed skin side down, the end of the femur is typically visible indicating that no back portion is attached. Figure 16 compares a leg quarter a whole leg, with the back portion being present on the leg quarter but not the whole leg.



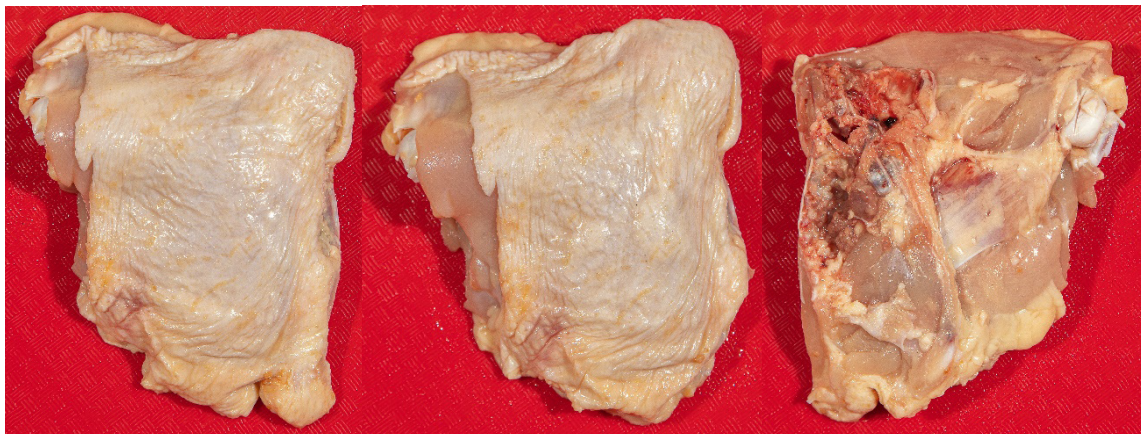
**Figure 15.** Whole leg displayed skin side up and skin side down.

## Thigh with back

The thigh with back is the upper portion of the leg quarter that is separated at the joint between the thigh and drumstick. The part of the back portion remains attached to the thigh. The part can be displayed skin side up or skin side down (see Figure 17). You can clearly see the back attached when the part is displayed skin side down. When displayed skin side up it is important to identify the back portion attached.



**Figure 16.** Comparison of the leg quarter (left) and whole leg (right) displayed skin side up.



**Figure 17.** Thigh with back displayed skin side up with a tail portion (left) and without a tail portion (middle) and skin side down (right).

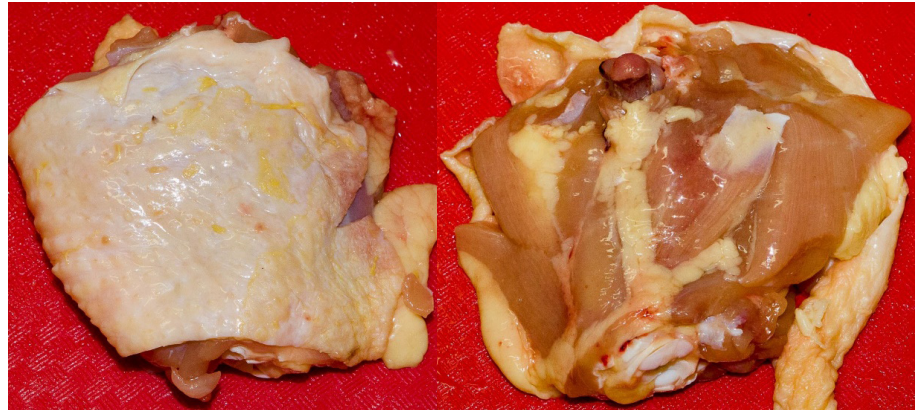
## Thigh

The thigh is the upper portion of the whole leg. The back portion is not attached. The part can be displayed skin side up or skin side down (see Figure 18). When displayed skin side down it is easier to see the tips of the femur bone. When displayed skin side up it is important to check the edges for the tips of the femur bone to make sure it is there. This would distinguish it from the boneless thigh.

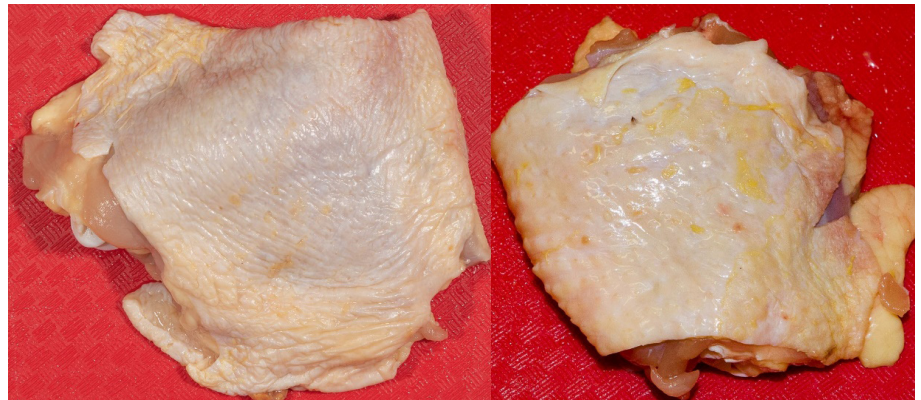
Figure 19 compares a thigh with back to a thigh (without back). The edge of the thigh with back is straight compared to the thigh since it does not have a back attached.

## Boneless Thigh

The boneless thigh is the whole thigh with the bone removed. The skin may or may not be attached (see Figure 20). Thigh meat, which is considered a 'dark' meat is considerably darker in color than breast meat. This can be seen in Figure 21 which compares breast meat with thigh meat. Note the much darker color for the thigh meat. The boneless thigh can be displayed skin side up or skin side down (see Figure 22). When displayed skin side down it is easier to see that the bone is not there. When displayed skin side up, it is necessary to check the edges of the part to make sure there is no indication that the femur is there.



**Figure 18.** Thigh displayed skin side up and skin side down.



**Figure 19.** Comparison of the thigh with back (left) and thigh (right). Note that the ends of the femur are visible on the thigh indicating that there is no back portion attached.



**Figure 20.** Boneless thigh displayed skin side up, with and without the skin attached.



**Figure 21.** Comparison of breast (left) and thigh (right) meat.



**Figure 22.** Boneless thigh displayed skin side up and skin side down.

### **Drumstick**

The drumstick is the lower portion of the leg that is separated at the hock and knee joint (see Figure 23).

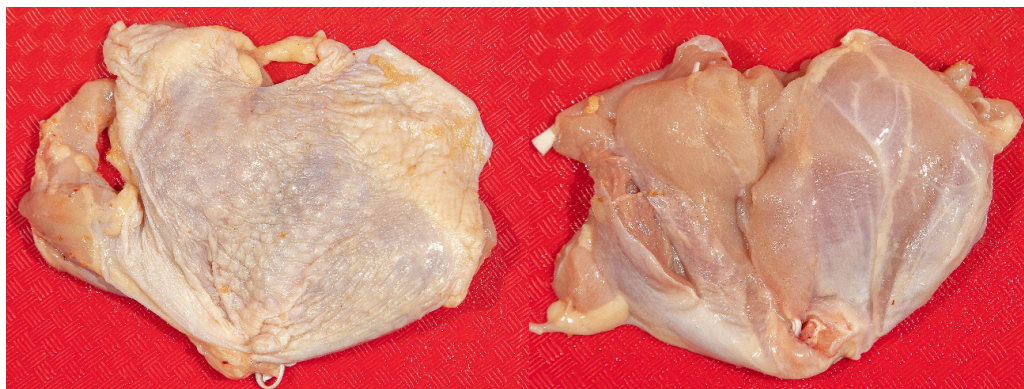


**Figure 23.** Drumstick.

### **Boneless Drumstick**

As the name implies, the boneless drumstick is the drumstick with the bone removed. The skin may or may not be attached (see Figure 24). In addition, the part can be displayed skin side up or skin side down (see Figure 25). When displayed skin side

down the tendons in the drumstick are clearly visible. This makes it easy to distinguish the boneless thigh from the boneless drumstick (see Figure 26). Note that while both the thigh and drumstick are considered dark meat, the color of the drumstick meat is not as dark as that of the thigh.



**Figure 24.** Boneless drumstick displayed skin side up, with and without skin attached.

**Figure 25.** Boneless drumstick displayed skin side up and skin side down.

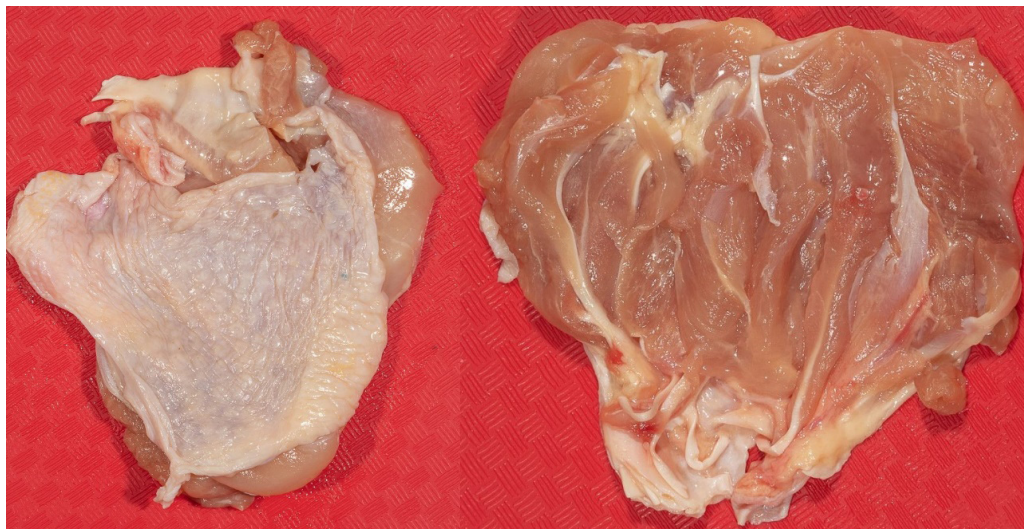
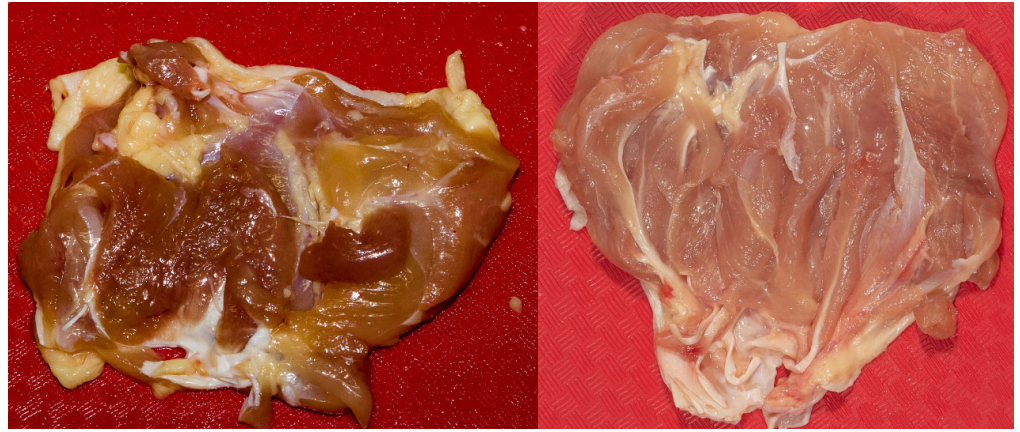
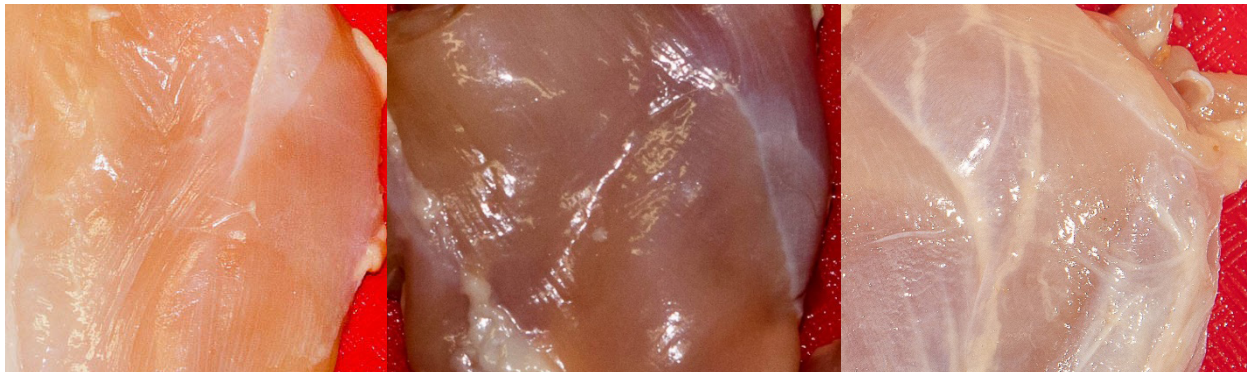


Figure 27 compares the color of chicken meat from the drumstick, thigh, and drumstick. Although the drumstick is considered dark meat like the thigh, it is lighter in color and more similar to the color of breast meat. The difference between the breast and drumstick meat is that the drumstick has more connective tissue.



**Figure 26.** Comparison of the boneless thigh and boneless drumstick, both displayed skin side down.



**Figure 27.** Comparison of breast, thigh, and drumstick meat.

## Wing Parts

With the development of buffalo wings, the wing portions of the chicken carcass have become more valuable. The wings can be purchased whole or cut up.

## Whole Wing

As the name implies, the whole wing is the entire wing with all the muscle, bone, and skin attached. The wing can also be displayed laid out or crossed over (see Figure 28). The wingtip may be removed (see Figure 29).



**Figure 28.** Whole wing displayed laid out (left) or with the wing tip folded under the drumette (right).

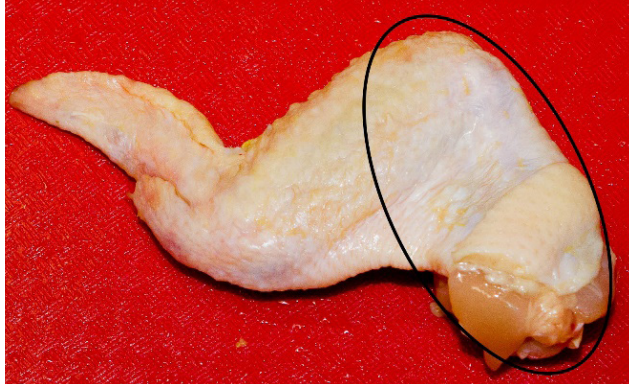


**Figure 29.** Whole wings with the wing tips removed.



## Wing Drumette

The Wing drumette is the part of the wing between the second and third joint (see Figure 30) and is shown in Figure 31. It is the part of the wing with one bone.



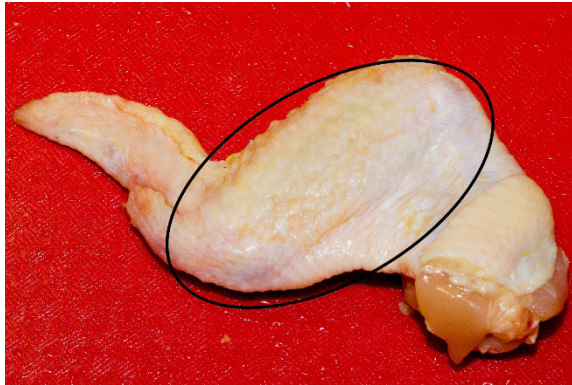
**Figure 30.** Anatomical reference for the drumette portion of the whole wing.



**Figure 31.** Drumettes.

## Wing Flat

The wing flat is the part of the wing between the first and second joints (see figures 32 and 33). It is the part between the wingtips and the drumette. This is the part of the wing with two bones.



**Figure 32.** Anatomical reference for the location of the flat portion of the whole wing.



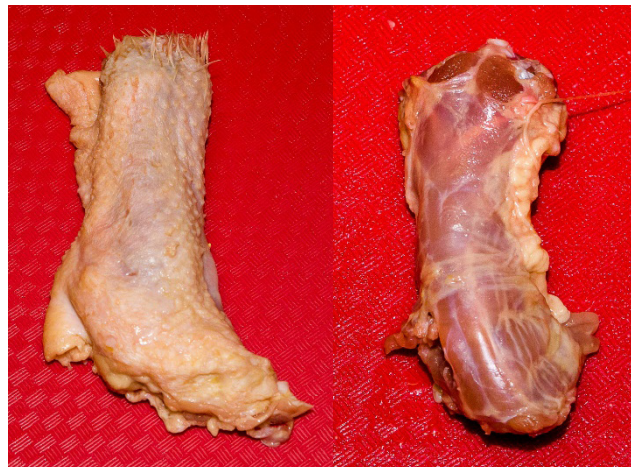
**Figure 33.** Wing flats.

## Miscellaneous Parts

There are a number of other parts that are of lesser value.

### Neck

The neck is composed of the neck bones with flesh attached. The skin may or may not be present (see Figure 34). When the skin is not present it is pretty obvious it is the neck portion. When the skin is present, some people confuse the neck for the drumstick or drumette.



**Figure 34.** The neck displayed with and without the skin attached.

### Paws

Paws are the whole foot with the cuticle removed and cut midway to the hock joint (see Figure 35). While paws do not have much of a market in the United States, there is a large market for chicken paws in Asia. Most of the chicken paws produced in the USA are exported.



**Figure 35.** Paws.

### **Gizzard**

The gizzard is the thick-walled, muscular organ that has been cross sectioned into two halves (see Figure 36).

### **Liver**

The liver is the reddish-brown, wedge-shaped organ with four lobes of unequal size and shape (see Figure 37).

### **Heart**

The heart is the triangular-shaped, four-chambered muscular organ (see Figure 38).



**Figure 36.** Chicken gizzards.



**Figure 37.** Chicken livers.



**Figure 38.** Chicken hearts.