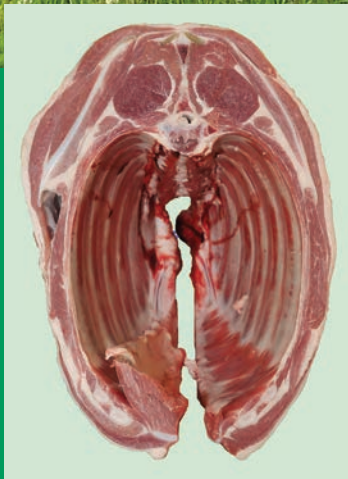
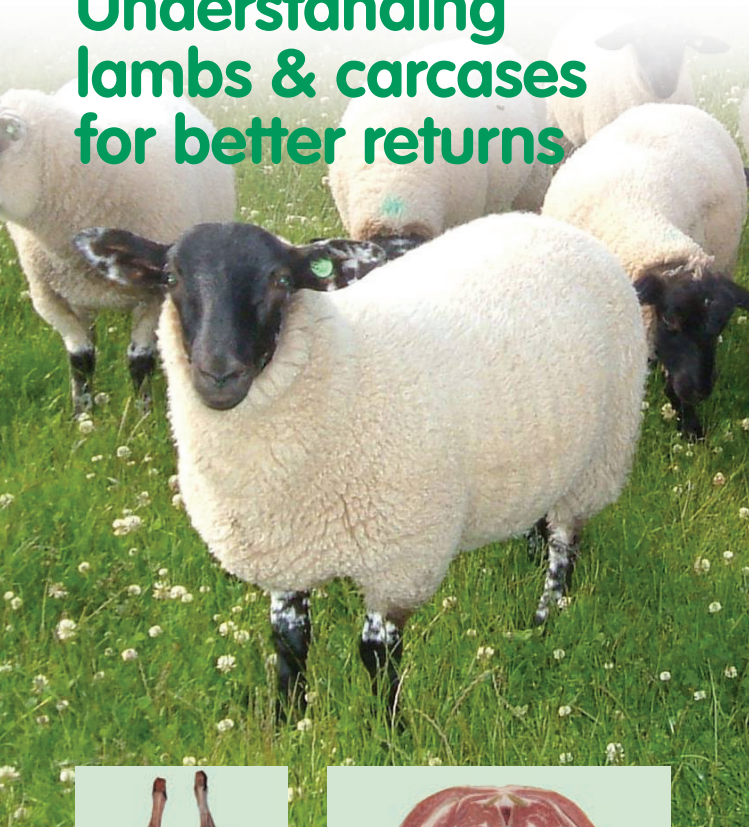




Better Returns  
Programme

# Understanding lambs & carcasses for better returns



Many in the sheep industry are talking about consistency. Returns can be improved by delivering a product that fits the needs of the customer. This means deciding which market to target, researching it and making breeding, feeding and production decisions with those market requirements in mind. This booklet highlights the good and the bad in terms of carcase quality, fat levels and conformation. Its aim is to help producers understand the specifications of the market and to illustrate some of the factors that can effect carcase value and therefore producer returns.



Steve Powdrill  
National Selection Specialist

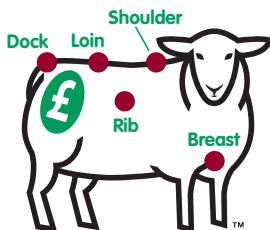
# Handling lambs

## Assessing conformation

### Selecting animals for slaughter

Weight and visual appraisal are general guides to an animal's readiness for market, but to ensure accurate selection, handling the live animal is essential.

Five key handling points give the best indication of level of finish and fat class.



To assess conformation feel the animal at the shoulder and loin. To assess fat level, feel the animal at the dock, loin, rib and breast.

### Assessing conformation

#### Shoulder



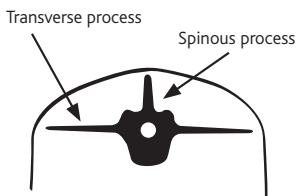
#### Loin



### Conformation

- E** Spinous processes undetectable, flesh creating a very convex profile, very broad shoulder area
- U** Spinous processes just detectable, flesh beginning to create a convex profile
- R** Spinous processes less prominent with flesh creating a straight profile under the hand
- O** Spinous processes still prominent, less concave with some evidence of flesh beginning to fill the hand
- P** Very prominent spinous processes evident. Very concave profile to the centre of the hand.

#### Skeletal structure of loin



# Assessing Fatness

## Dock



- 1 Individual bones very easy to detect
- 2 Individual bones easy to detect with light pressure
- 3 Moderate pressure to detect individual bones
- 4 Firm pressure to detect individual bones
- 5 Individual bones cannot be detected



## Loin



- 1 Very easy to feel between processes which are very prominent
- 2 Prominent spinous and transverse processes felt easily
- 3 Tips of processes rounded. Individual bones felt as corrugations with light pressure
- 4 Spinous processes felt with moderate pressure. Transverse processes felt with firm pressure
- 5 Individual processes cannot be felt



## Rib

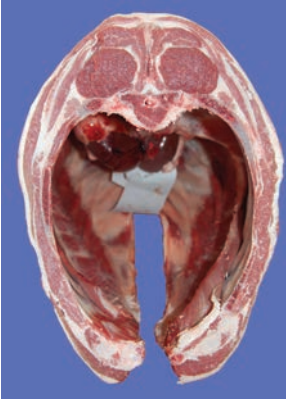


- 1 Individual ribs feel very bare, prominent and easy to detect
- 2 Individual ribs show slight cover but still easy to detect
- 3 Individual ribs have softer feel, with fat cover becoming more evident in between and over ribs, which are now less easy to detect
- 4 Individual ribs are only detectable with firm pressure
- 5 Individual ribs are undetectable, soft, rolling, spongy feel

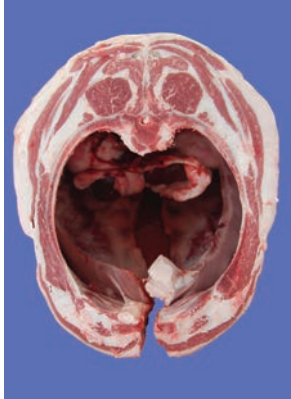


## R3L/U4H comparison

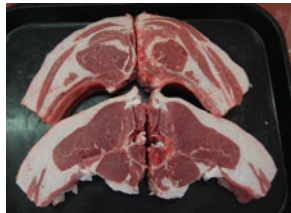
**R3L - 19.5kg**



**U4H - 26.5kg**



**4 chops 454g**



**4 chops 705g**



**R3L plate waste =  
92g or 20.6%**

**Edible = 362g**



**U4H plate waste =  
344g or 48.79%**

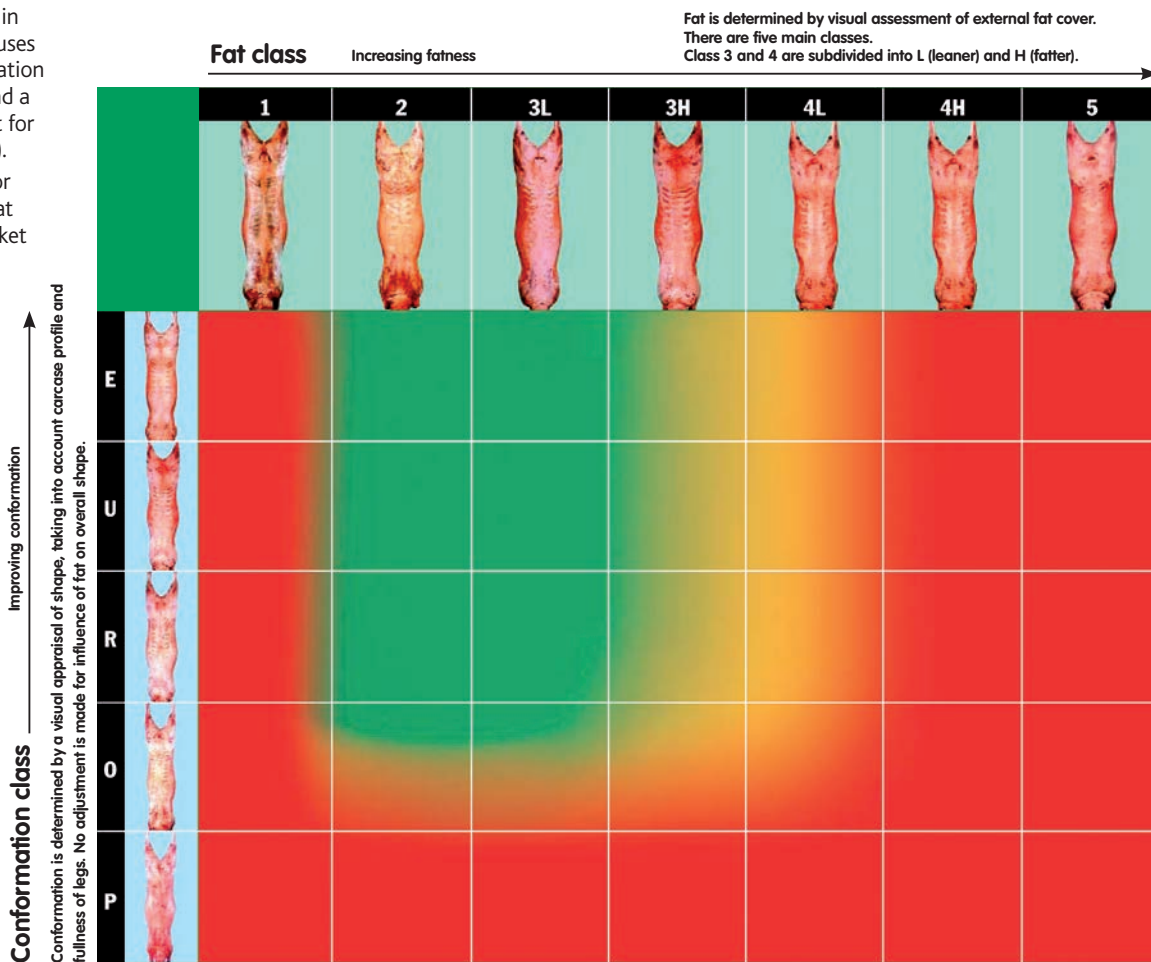
**Edible = 361g**

# Carcase Classification & yield

The current grading system for carcasses in the UK and Europe uses the EUROP classification for conformation and a numeric assessment for fatness (classes 1-5).

Combining scores for conformation and fat determines the market most suited for each type of carcase.

Aim for most animals to fall within the green shaded area where there is greatest demand and highest prices.



## Clean Sheep (NSL/OSL)

### Commercial Cutting Data

Fat class	1	2	3L	3H	4L	4H	5
% saleable cuts	94.87	92.95	91.52	90.56	89.61	88.65	87.22
% fat trim	3.91	5.92	7.44	8.46	9.47	10.49	12.02
% bone and waste	1.22	1.12	1.04	0.98	0.92	0.86	0.77

## Market signals



- Little or no demand
- Discount prices
- Poorest returns
- Medium demand
- Average prices
- Moderate returns
- High UK demand
- Premium prices
- Best returns

# Conformation differences

**P2**



**Poor**

**R3L**

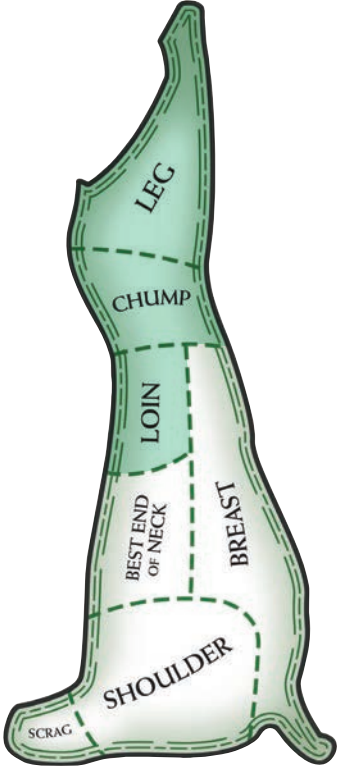


**Good**

**E3L**



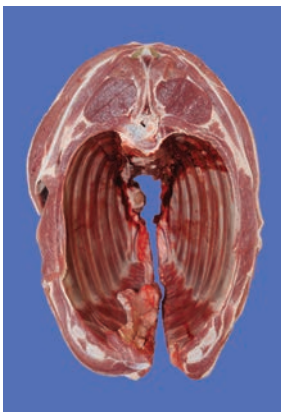
**Excellent**





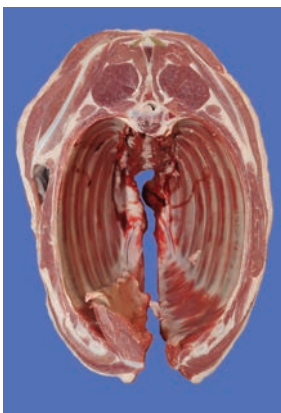
## Cut through and fat levels

R2



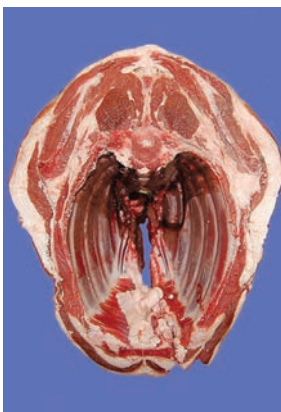
R2  
LEAN

R3L



R3L  
IDEAL

R4H



R4H  
TOO FAT



## Bruising and wool pull

Sensitive handling is vital for animal welfare and avoids damage that shows up after slaughter.

Sheep bruise easily, particularly young lambs.

Bruising and abscesses lead to wasteful trimming and even partial condemnation of the carcass, which in turns reduces saleability and the amount paid to the producer.



### Do not:

- ✗ Handle and move sheep by grabbing wool. This creates a bruise which will require trimming at the processing plant
- ✗ Allow sheep to be trampled during transport
- ✗ Allow sheep to trample over each other in races during handling or selection
- ✗ Leave any sharp objects in races, trailers or on gates etc

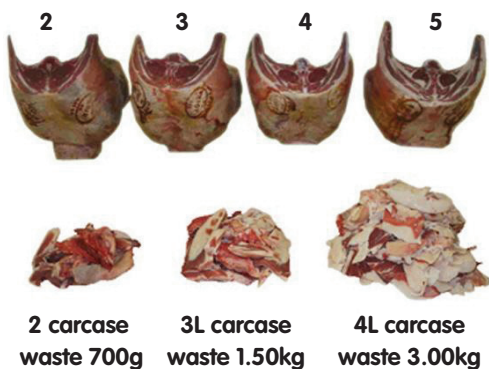
### Always:

- ✓ Use clean injection needles to avoid infection in the skin
- ✓ Choose injection site with care (neck wherever possible)

## Does weight pay?

Additional weight may pay but not if only putting on fat.  
If looking to add weight consider the following:

- Increasing fat levels beyond optimum will have price penalties
- Increasing weight for no return
- Increase feed costs per kg produced
- Reduced feed availability for sheep remaining



### R3L versus R4H

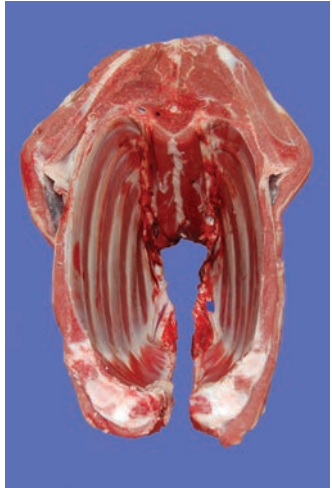
R3L = base price/kg

R4H = - 30p/kg

**21kg x 30p = £6.30 loss by getting the carcass to a R4H**

Remember most abattoirs only pay up to an upper limit deadweight (20, 21 or 22kgs).

Check with your outlet to find out their upper limit.



## Conformation

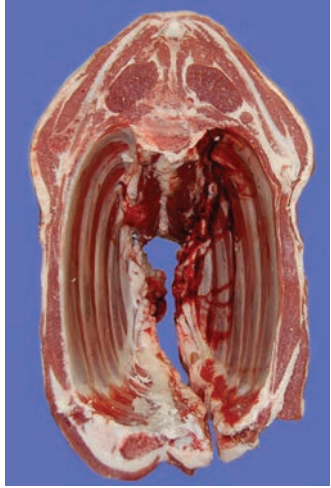
Profiles straight to concave, average muscle development.

- Legs**            Profiles tending to be slightly concave.
- Loin**             Lacking width and fullness.
- Shoulder**        Tending to be narrow, lacking fullness.

## Fat

None up to very low fat cover.

- External**        Traces of or no fat cover.
- Internal**        **Abdominal:** traces of or no fat visible on the kidneys.  
**Thoracic:** traces of or no fat visible between the ribs.



## Conformation

Profiles straight to concave, average muscle development.

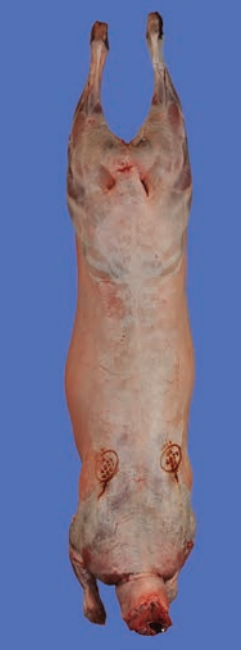
- Legs**            Profiles tending to be slightly concave.
- Loin**            Lacking width and fullness.
- Shoulder**        Tending to be narrow, lacking fullness.

## Fat

Slight fat cover, flesh visible almost everywhere.

- External**        A slight layer of fat covers part of the carcass but may be less evident on the loin and shoulders. There may be a lack of firmness in the flank area.
- Internal**        **Abdominal:** traces of fat or a slight layer of fat envelops part of the kidneys.  
**Thoracic:** muscle clearly visible between the ribs.

# R3L



## Conformation

Profiles on the whole straight, good muscle development.

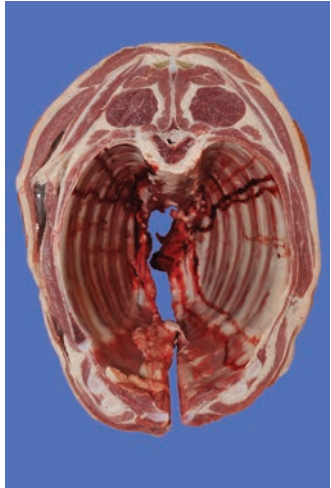
- Legs** Profiles mainly straight.
- Loin** Full but less width to the shoulder.
- Shoulder** Good development, but less full.

## Fat

Flesh, with the exception of the leg and shoulder, almost entirely covered with a thin fat cover, slight deposits in the thoracic cavity.

- External** A layer of fat covering most or the entire carcass; slightly thickened fat zones at the base of the tail.
- Internal** **Abdominal:** light layer of fat envelops the kidneys.  
**Thoracic:** muscle still visible between the ribs.

# R3H



## Conformation

Profiles on the whole straight, good muscle development.

- Legs** Profiles mainly straight.
- Loin** Full but less width to the shoulder.
- Shoulder** Good development, but less full.

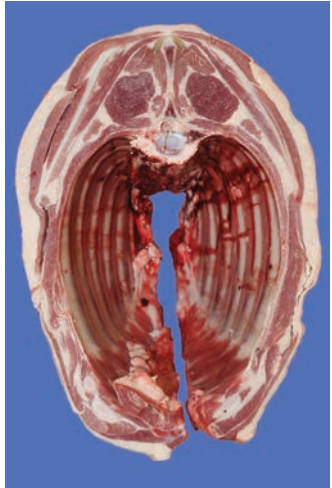
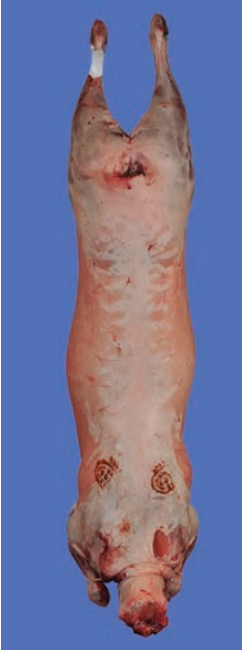
## Fat

Flesh, with the exception of the leg and shoulder, almost entirely covered with thickening fat cover, increasing deposits in the thoracic cavity.

- External** A light layer of fat covering most or the entire carcass, thickened fat zones at the base of the tail, over the chump loin and shoulder.

- Internal** **Abdominal:** thicker layer of fat envelops part or all of the kidneys.  
**Thoracic:** slight fat deposits may be visible between the ribs.

# R4L



## Conformation

Profiles on the whole straight, good muscle development.

- Legs** Profiles mainly straight.
- Loin** Full but less width to the shoulder.
- Shoulder** Good development, but less full.

## Fat

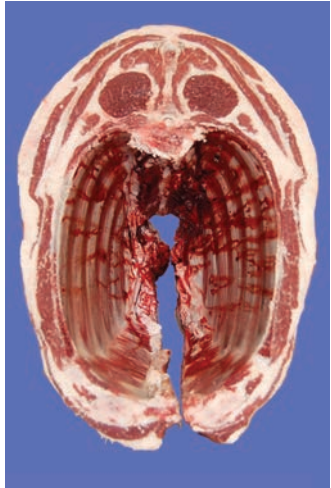
Flesh covered with fat, but still partly visible on the legs and shoulder, some distinctive fat deposits in the thoracic cavity.

**External** A thick layer of fat covering most or all of the carcase but may be thinner on limbs and thickening on shoulders.

**Internal** **Abdominal:** kidney is enveloped in fat.  
**Thoracic:** muscle between the ribs may be slightly infiltrated with fat, fat deposits may be visible on the ribs.



# R5



## Conformation

Profiles on the whole straight, good muscle development.

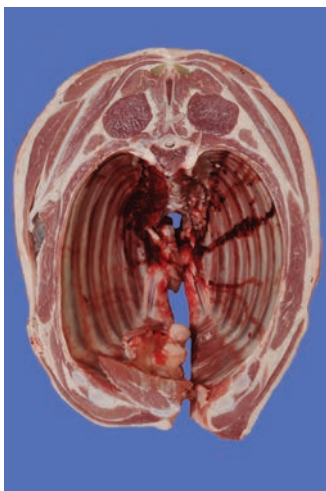
- Legs** Profiles mainly straight.
- Loin** Full but less width to the shoulder.
- Shoulder** Good development, but less full.

## Fat

Carcase thickly covered with fat, heavy fat deposits in the thoracic cavity.

- External** Very thick fat cover, patches of fat sometimes visible. The flank will be very thick, firm to the touch with very heavy flank fat deposits.
- Internal** **Abdominal:** kidneys enveloped in thick layer of fat.  
**Thoracic:** muscle between the ribs infiltrated with fat, fat deposits visible on the ribs.

# U3H



## Conformation

Profiles on the whole convex, very good muscle development.

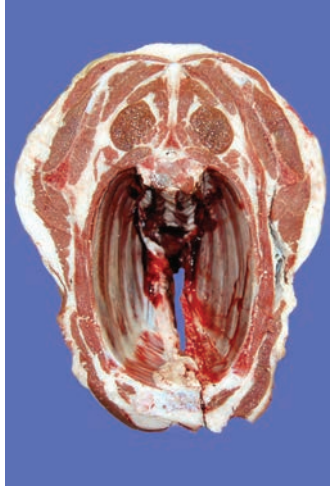
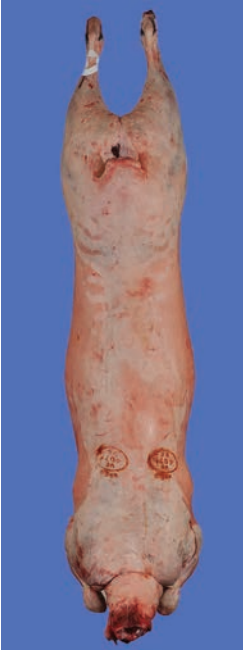
- Legs** Full, profiles convex.
- Loin** Wide and full to the shoulder.
- Shoulder** Convex and full.

## Fat

Flesh, with the exception of the leg and shoulder, almost entirely covered with thickening fat cover, increasing deposits in the thoracic cavity.

- External** A light layer of fat covering most or the entire carcass, thickened fat zones at the base of the tail, over the chump loin and shoulder.
- Internal**
  - Abdominal:** thicker layer of fat envelops part or all of the kidneys.
  - Thoracic:** slight fat deposits may be visible between the ribs.

# U4H



## Conformation

Profiles on the whole convex, very good muscle development.

- Legs** Full, profiles convex.
- Loin** Wide and full to the shoulder.
- Shoulder** Convex and full.

## Fat

Flesh covered with fat, distinctive fat deposits in the thoracic cavity.

- External** A thick layer of fat covering most or the entire carcass. The flank will be thick, firm to the touch with heavy flank fat deposits.
- Internal**
  - Abdominal:** kidneys enveloped in fat.
  - Thoracic:** muscle between the ribs infiltrated with fat, fat deposits may be visible on the ribs.

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