Did the Locker Plant Steal Some of My Meat?

by Duane M. Wulf, Ph.D.
Department of Animal and Range Sciences
South Dakota State University

To determine how much meat you should get from a market animal:

Pounds of Meat = (Dressing Percent X Carcass Cutting Yield) X Live Weight

Therefore, two factors affect the percentage of meat that you will receive:

- Dressing Percentage
- Carcass Cutting Yield

Dressing Percentage

Dressing Percentage = The percentage of the live animal that ends up as carcass.

Dressing Percentage = Carcass Weight / Live Weight X 100

Dressing Percentage is affected by:

- 1. Gut fill The more gut fill at the time the live weight is taken, the lower the dressing percentage will be. If an animal is weighed right off of full feed, the dressing percentage will be 2 to 5% lower than if the animal is fasted for 24 hours prior to weighing.
- Muscling A heavier muscled animal will have a higher dressing percentage than a light muscled animal.
- 3. Fatness A fatter animal will have a higher dressing percentage than a lean animal.
- 4. Mud Cattle with a lot of mud attached to their hide will have a lower dressing percentage than clean cattle.
- <u>5. Wool</u> Lambs with long wool will have a lower dressing percentage than recently-shorn lambs.

Average Dressing Percentages:

Beef cattle: 62% Dairy steers: 59% Market hogs: 74%

Market lambs: 54% (shorn)

Carcass Cutting Yield

Carcass Cutting Yield = The percentage of the carcass that ends up as meat.

Carcass Cutting Yield = Pounds of Meat / Carcass Weight X 100

Carcass Cutting Yield is affected by:

- 1. Fatness Leaner animals will have higher carcass cutting yields than fatter animals.
- <u>2. Muscling</u> More muscular animals will have higher carcass cutting yields than less muscular animals.
- 3. Bone-in versus Boneless This will dramatically affect carcass cutting yield. If more boneless cuts that are made, then the carcass cutting yield will be lower than if bone-in cuts are made. If bone-in chuck roasts, rib steaks, T-bones, and bone-in sirloin steaks are made, the carcass cutting yield will be much higher than if boneless chuck roasts, ribeye steaks, strip steaks, and boneless sirloin steaks are made. It is important to note that the amount of edible meat will not change, but boneless cuts will take up less room in your freezer. If you get soup bones and short ribs, the carcass cutting yield will be higher than if you have these items boned and put into ground beef.
- 4. The Amount of Fat Remaining on the Meat Cuts If the meat cutter leaves more surface fat on the meat cuts, then the carcass cutting yield will be higher than if the meat cuts are closely-trimmed.
- 5. The Leanness of the Ground Product If the ground product (ground beef, ground pork, pork sausage, ground lamb) is made very lean, then the carcass cutting yield will be lower than if the ground product is made with more fat. For example, a typical beef carcass could have 20 more pounds of ground beef if it is made into 70% lean ground beef than if it is made into 92% lean ground beef.

BEEF EXAMPLES:

Average beef animal, weighed full, 1200 lbs., boneless steaks and roasts, closely trimmed, lean ground beef:

$$(.61 \times .62) \times 1200 = 38\% \times 1200 = 456 \text{ lbs. of meat}$$

Average beef animal, weighed full, 1200 lbs., bone-in steaks and roasts, regular trimmed, regular ground beef:

$$(.61 \times .71) \times 1200 = 43\% \times 1200 = 516 \text{ lbs. of meat}$$

Average beef animal, weighed full, 1200 lbs., some bone-in and some boneless steaks and roasts, closely trimmed, regular ground beef:

$$(.61 \times .67) \times 1200 = 41\% \times 1200 = 492 \text{ lbs. of meat}$$

Average Holstein steer, weighed full, 1200 lbs., boneless steaks and roasts, closely trimmed, lean ground beef:

$$(.58 \times .57) \times 1200 = 33\% \times 1200 = 396 \text{ lbs. of meat}$$

Lean, heavily muscled beef animal, weighed full, 1200 lbs., boneless steaks and roasts, closely trimmed, lean ground beef:

$$(.62 \times .69) \times 1200 = 43\% \times 1200 = 516 \text{ lbs. of meat}$$

Very fat beef animal, weighed full, 1200 lbs., boneless steaks and roasts, closely trimmed, lean ground beef:

$$(.62 \times .46) \times 1200 = 29\% \times 1200 = 348 \text{ lbs. of meat}$$

Lean, heavily muscled beef animal, weighed empty, 1200 lbs., bone-in steaks and roasts, regular trimmed, regular ground beef:

$$(.65 \times 1.80) \times 1200 = 52\% \times 1200 = 624 \text{ lbs. of meat}$$

PORK EXAMPLES:

Note: The dressing percentages and carcass cutting yields in these examples are for skin-on pork carcasses. Many meat plants skin pork carcasses. Skinned carcasses will have lower dressing percentages and higher carcass cutting yields. However, you will still come up with the same answer when calculating the amount of meat so these examples still apply. In other words, you will get the same amount of meat from a pig whether the carcass is skinned or not.

Average market hog, weighed full, 250 lbs., bone-in chops and roasts, closely trimmed, regular ground pork/sausage:

$$(.72 \times .74) \times 250 = 53\% \times 250 = 133 \text{ lbs. of meat}$$

Average market hog, weighed full, 250 lbs., boneless chops and roasts, closely trimmed, lean ground pork/sausage:

$$(.72 \times .65) \times 250 = 47\% \times 250 = 118$$
 lbs. of meat

Lean, heavily muscled market hog, weighed full, 250 lbs., boneless chops and roasts, closely trimmed, lean ground pork/sausage:

$$(.73 \times .73) \times 250 = 53\% \times 250 = 133 \text{ lbs. of meat}$$

Very fat, light muscled market hog, weighed full, 250 lbs., boneless chops and roasts, closely trimmed, lean ground pork/sausage:

$$(.74 \times .50) \times 250 = 37\% \times 250 = 93$$
 lbs. of meat

Heavily muscled market hog, weighed empty, 250 lbs., bone-in chops and roasts, regular trimmed, regular ground pork/sausage:

$$(.76 \times .82) \times 250 = 62\% \times 250 = 155$$
 lbs. of meat

LAMB EXAMPLES:

Average market lamb, shorn, weighed full, 120 lbs., bone-in chops and roasts, closely trimmed, regular ground lamb:

$$(.51 \times .75) \times 120 = 38\% \times 120 = 46 \text{ lbs. of meat}$$

Average market lamb, shorn, weighed empty, 120 lbs., bone-in chops and roasts, closely trimmed, regular ground lamb:

$$(.54 \times .75) \times 120 = 41\% \times 120 = 49 \text{ lbs. of meat}$$

Average market lamb, shorn, weighed full, 120 lbs., some bone-in and some boneless chops and roasts, closely trimmed, regular ground lamb:

$$(.51 \times .68) \times 120 = 35\% \times 120 = 42 \text{ lbs. of meat}$$

Lean, heavily muscled market lamb, shorn, weighed empty, 120 lbs., bone-in chops and roasts, closely trimmed, regular ground lamb:

$$(.57 \times .78) \times 120 = 44\% \times 120 = 53$$
 lbs. of meat

Fat, light muscled market lamb, long fleece, weighed full, 120 lbs., bone-in chops and roasts, closely trimmed, regular ground lamb:

$$(.48 \times .65) \times 120 = 31\% \times 120 = 37$$
 lbs. of meat