

Carcass Terminology

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Goal (learning objective)

Youth will learn carcass terminology to help them have a better understanding of meat quality.

Supplies

- Handout 1, “Definitions” enough copies for the group
- Handout 2, “Carcass Terminology Cards” 1 set copied on card stock (can be laminated to help make more durable and last several years)
 - a. After cards are printed, cut cards out to separate terms from definitions.
 - b. On the back of each card assign a number (1-54).

Pre-lesson preparation

- Read and review the resource materials.
- Familiarize yourself with carcass terminology handout 1.
- Make copies.
- Practice the activity, work through correctly matching definitions and terms to help you be ready to lead youth through the activity.

Lesson directions and outline

Background Information

Being able to talk about youth raised animal projects will help youth be able to share the importance of meat quality with the consumer. Giving youth confidence to discuss the role they play in the quality assurance process is critical to ensure high quality, consistent, safe and wholesome food is provided to consumers. By learning carcass terminology youth gain knowledge to have the confidence to share answers to questions an uniformed person may ask.

The matching activity described below is a fun way for youth to learn carcass terminology.

Conducting the activity (DO)

1. Review Handout 1 with youth.
2. Divide the group into at least two teams. The number of youth attending the meeting may determine if you need to have more teams. Make sure older and younger youth are equally interspersed in the groups.
3. Explain to the youth the objective of the activity is to match the term with the correct definition. All of the cards should be laid out on the table face down (can be in number order).
4. The game is played like concentration - youth call out a number, when the card is read out loud the youth need to call another number in an attempt to match the correct term and definition.
5. If the cards match the team keeps matching cards and calls out another number. If the cards don't match, turn the cards back over and it is the next team's turn.
6. Proceed in this manner until all of the cards have been matched. Make sure all youth have the opportunity to choose a card and answer. You may choose to recognize the winning team with a prize.

What did we learn? (REFLECT)

- Ask: What terms and definitions were new to you?
- Ask: Can you think of other carcass terms and definitions that weren't in the game?
- Ask: How will learning the terminology help you discuss raising a market animal?

Why is that important? (APPLY)

- Ask: Why do you think you should know what these terms mean? (Be better able to talk to consumers or people that don't understand the meat industry)
- Ask: Why is that important? (To help people understand that meat animal production provide high quality, safe, consistent and wholesome food source)
- Ask: How did playing the game help you learn to pay attention to what other are doing?
- Ask: How will this help you at home? At school? While you are with friends?

Resources

Ohio State University Extension. (2011). Carcass Evaluation. *Beef resource handbook* (pages 8-1 through 8-11 and G-1 through G-12).

Ohio State University Extension. (2008). Meat Goats. *Goat resource handbook* (pages 118-126).

Ohio State University Extension. (2011). Carcass Evaluation and Meats. *Sheep resource handbook for market and breeding projects* (pages 73-75).

Ohio State University Extension. (2000). Quality. *Swine resource handbook for market and breeding projects* (pages 4-6 through 4-7 and G-1 through G-4).

QUALITY ASSURANCE: CARCASS TERMINOLOGY – HANDOUT 1

Definitions

Backfat – See External Fat Thickness. It is a layer of fat between the skin (hide) and muscle. This term is typically used for hogs but can be used for all market animal species.

Carcass – the muscle, bone and fat associated with the slaughter of an animal, left after the removal of the head, hide and internal organs.

Cutability – the percentage of boneless, closely trimmed retail cuts.

Dark Cutter – a condition when the lean meat of a beef carcass has a darker than normal color. This condition usually results from the animal being stressed prior to harvesting. This causes the meat to be less desirable.

Dressing Percentage – is the hot carcass weight divided by live weight and the percentage of the carcass that can be processed into wholesale cuts.

External fat thickness – the measurement of the subcutaneous fat over the ribeye or loin eye measured in tenths of an inch. The measurement is taken between the 12th and 13th rib of cattle and lambs and between the 10th and 11th ribs of a hog.

Flank Streaking – the development of fat streaking inside the flank muscles of lambs is one of the determining factors to identify the quality grade of lambs.

High Priced Cuts – are wholesale cuts of meat that typically are higher in value. Examples of these cuts are the Loin and Rib (or Rack when referring to lamb).

Hot carcass weight or HCW – is the weight of the carcass of an animal at the packing plant after the internal organs have been removed just prior to the carcass being put in the cooler. It is a factor used in determining yield grade.

Intramuscular fat or IMF- the amount of fat flecks found in the longissimus dorsi (ribeye) muscle when the carcass is split between the 12th and 13th ribs of cattle, also referred to as marbling. The amount of IMF is used to determine Quality grade of beef. The higher amount equals a higher Quality grade.

KPH – kidney, pelvic and heart is the amount of fat found in the regions of the kidney, pelvis and heart as a percentage of the carcass weight. KPH makes up about 3 percent of the total carcass and is a factor used in determining yield grade.

Lean – is a term used to express the amount of muscle that is free from fat. A higher percent of lean equals more muscle and less fat.

Loin eye Area – See Loin Muscle Area. The number of square inches of muscle in a cross section of the longissimus dorsi muscle.

Loin Muscle Area – the number of square inches in a cross section of longissimus dorsi (loin eye) muscle. This is measured by cutting the loin between the 10th and 11th ribs and measuring the cut surface area of the muscle. Typically a term used in describing muscle amount in hogs.

Longissimus dorsi – is a major muscle in the beef rib and loin; lamb rack and loin; and the pork loin. It is the longest and largest muscle in the back and is exposed when a carcass is ribbed.

Palatability – is the taste of the meat and includes: juiciness, flavor, taste and tenderness. Quality grade affects palatability.

Percent Lean – is a term used in hogs as a way to define the proportion of the carcass that is lean meat.

Quality Grade – The factors associated with palatability characteristics of the edible portion of meat; including color, texture, firmness, marbling and age. This term is typically used to for cattle and lambs.

Retail Cuts – the cuts of meat the consumer buys at the meat counter or the meat department at a store.

Ribbed or Ribbing – a term used to describe when a carcass is split (cut) prior to being processed into wholesale cuts. A beef and lamb carcass are ribbed between the 12th and 13th ribs. A hog carcass is ribbed between the 10th and 11th ribs.

Ribeye Area – the surface area of the longissimus dorsi (eye) muscle between the 12th and 13th rib of a beef or lamb carcass. It is measured in square inches and is a factor in determining yield grade. It is an important indicator of muscling and is the location where quality grade in beef is determined.

Ultrasound – high frequency sound waves used to measure external fat thickness, ribeye area, loin eye area and intramuscular fat percentage on live animals.

USDA – United States Department of Agriculture is responsible for the regulations and guidelines used for determining grading carcasses.

Wholesale Cuts or primal cuts – the major cuts the carcass is divided (cut) into prior to being shipped to a grocery store.

Yield Grade – identifies carcasses for differences in cutability or yield of boneless, closely trimmed retail cuts. Yield grade of a beef carcass is determined by the amount of external fat, the amount of kidney, pelvic and heart fat, the ribeye area and the hot carcass weight. Yield grade of a lamb carcass is determined by the amount of external fat. Range is from 1 to 5. 1 equals more muscle less fat. 5 equals excess fat compared to muscle.

10th Rib Fat- See External Fat Thickness. A layer of fat between the skin and the measure, measured at the 10th rib. This term is used for hogs.

12th Rib Fat Thickness – See External Fat Thickness. A layer of fat between the hide and the muscle, measured at the 12th rib. This term is used for cattle and lambs.

<p>Backfat</p>	<p>A layer of fat between the skin (hide) and muscle.</p>
<p>Carcass</p>	<p>The muscle, bone and fat associated with the slaughter of an animal, left after the removal of the head, hide and internal organs.</p>
<p>Cutability</p>	<p>The percentage of boneless, closely trimmed retail cuts.</p>

<p>Dark Cutter</p>	<p>A condition when the lean meat of a beef carcass has a darker than normal color.</p>
<p>Dressing Percentage</p>	<p>The hot carcass weight divided by live weight and the percentage of the carcass that can be processed into wholesale cuts.</p>
<p>External fat thickness</p>	<p>The measurement of the subcutaneous fat over the ribeye or loin eye measured in tenths of an inch.</p>

Flank Streaking	The development of fat streaking inside the flank muscles of lambs is one of the determining factors to identify the quality grade of lambs.
High Priced Cuts	Wholesale cuts of a carcass that typically are higher in value. Examples of these cuts are the Loin and Rib (or Rack when referring to lamb).
Hot carcass weight or HCW	The weight of the carcass of an animal at the packing plant after the internal organs have been removed just prior to the carcass being put in the cooler.

<p>Intramuscular fat or IMF</p>	<p>The amount of fat flecks found in the ribeye muscle when the carcass is split between the 12th and 13th ribs of cattle, also referred to as marbling.</p>
<p>KPH</p>	<p>Kidney, pelvic and heart is the amount of fat found in the regions of the kidney, pelvis and heart as a percentage of the carcass weight in cattle. A factor in determining Yield Grade.</p>
<p>Lean</p>	<p>A term used to express the amount of muscle that is free from fat. A higher percent of lean equals more muscle and less fat.</p>

<p>Loin eye Area</p>	<p>The number of square inches of muscle in a cross section of the longissimus dorsi muscle. Measured between the 10th and 11th ribs on a hog.</p>
<p>Loin Muscle Area</p>	<p>The number of square inches in a cross section of longissimus dorsi (loin eye) muscle. This is measured by cutting or ribbing the loin between the 10th and 11th ribs on a hog and measuring the cut surface area of the muscle.</p>

<p>Longissimus dorsi</p>	<p>A major muscle in the beef rib and loin; lamb rack and loin; and the pork loin. It is the longest and largest muscle in the back and is exposed when a carcass is ribbed.</p>
<p>Palatability</p>	<p>How meat tastes and includes: juiciness, flavor, taste and tenderness. Quality grade affects palatability.</p>
<p>Percent Lean</p>	<p>A term used in hogs as a way to define the proportion of the carcass that is lean meat.</p>

<p>Quality Grade</p>	<p>The factors associated with palatability characteristics of the edible portion of meat; including color, texture, firmness, marbling and age. This term is typically used to for cattle and lambs.</p>
<p>Retail Cuts</p>	<p>The cuts of meat the consumer buys at the meat counter or the meat department at a grocery store.</p>
<p>Ribbed or Ribbing</p>	<p>A term used to describe when a carcass is split (cut) prior to being processed into wholesale cuts. A beef and lamb carcass are ribbed between the 12th and 13th ribs. A hog carcass is ribbed between the 10th and 11th ribs.</p>

<p>Ribeye Area</p>	<p>The surface area of the longissimus dorsi (eye) muscle between the 12th and 13th rib of a beef or lamb carcass. Measured in square inches and is a factor in determining yield grade.</p>
<p>Ultrasound</p>	<p>High frequency sound waves used to measure external fat thickness, ribeye area, loin eye area and intramuscular fat percentage on live animals.</p>
<p>USDA</p>	<p>United States Department of Agriculture. It is responsible for the regulations and guidelines used for determining grading carcasses.</p>

Wholesale Cut or Primal Cuts	The major cuts the carcass is divided (cut) into prior to being shipped to a grocery store.
Yield Grade	The system used to identify carcasses for differences in cutability or yield of boneless, closely trimmed retail cuts. Used for cattle and lambs. Ranges from 1 to 5.
10th Rib Fat	A layer of fat between the skin and the measure, measured at the 10 th rib. This term is used for hogs.

**12th Rib Fat
Thickness**

A layer of fat between the hide and the muscle, measured at the 12th rib. This term is used for cattle and lambs.