



2023 National FFA Meats Evaluation & Technology CDE

OFFICIALS

Class	Placing	Cuts
1 – Beef Ribeye Steaks	1 – 2 – 4 – 3	4 – 3 – 4
2 – Lamb Loin Chops	2 – 4 – 3 – 1	4 – 2 – 5
3 – Fresh Hams	4 – 2 – 1 – 3	4 – 2 – 5
4 – Pork Carcasses	3 – 2 – 1 – 4	4 – 2 – 3
5 – Beef Sirloin Steaks	4 – 1 – 2 – 3	3 – 5 – 2
7 – Beef Carcasses (Q)	4 – 1 – 3 – 2	2 – 2 – 4
8 – Pork Loins (q)	2 – 1 – 4 – 3	4 – 3 – 3

Pork Loins **Keep**/Cull

Loin	Points
1	18
2	1
3	13
4	0
5	11
6	0
7	6
8	8

Questions

Class 7 – Beef Carcasses

1. Which carcass had the largest ribeye? 3
2. How many carcasses graded USDA Choice or higher? 4
3. Which carcass had the least external fat? 3
4. Which carcass had the greatest amount of marbling? 1
5. Which carcass had the smallest ribeye? 1

Class 8 – Pork Loins

6. Which loin had the highest lean to fat ratio? 2
7. Which loin had the palest Longissimus dorsi muscle in the blade end? 3
8. Which loin had the most seam fat in the blade end? 3
9. Which loin had the most marbling in the loineye in the blade end? 3
10. Which loin had the leanest sirloin face? 2

Quality/Yield Grading

No	Maturity	Marbling	Quality Grade	PYG/ Adj PYG	Carcass Weight	Req REA	REA/Adj.	%KPH/Adj	Final Yield
1	A	Sm 50	Ch -	3.1 / 3.3	960	15.3	17.2 / -0.6	2.0 / -0.3	2.4
2	A	Sm 80	Ch -	2.4 / 2.5	900	14.6	17.0 / -0.7	2.0 / -0.3	1.5
3	A	Sm 60	Ch -	3.4 / 3.6	840	13.8	16.0 / -0.7	2.5 / -0.2	2.7
4	A	Mt 60	Ch 0	3.6 / 3.7	950	15.2	13.0 / +0.7	3.0 / -0.1	4.3

TEAM ACTIVITY OFFICIALS

TEAM ACTIVITY #1 – KEEP/CULL SMOKED BONE-IN PORK CHOPS

Muscle to fat and Muscle to bone ratios are important as you want to minimize plate waste.

Workmanship – look for uniform color, absence of air and gel pockets

Keep the 4 exhibits which best fit the criteria and cull the 4 exhibits which do not.

Loin	Points
1	9
2	3
3	14
4	7
5	12
6	4
7	15
8	1

TEAM ACTIVITY #2 – GENERAL ANATOMY

1. *Identify the muscle:*

- 1) Gluteus medius
- 2) **Biceps femoris**
- 3) Longissimus dorsi
- 4) Psoas major

2. *Identify the muscle:*

- 1) **Gluteus medius**
- 2) Biceps femoris
- 3) Psoas major
- 4) Spinalis dorsi

3. *Identify the muscle:*

- 1) Subscapularis
- 2) **Longissimus dorsi**
- 3) Psoas major
- 4) Spinalis dorsi

4. *Identify the muscle:*

- 1) Gluteus medius
- 2) Longissimus dorsi
- 3) **Psoas major**
- 4) Spinalis dorsi

5. *Identify the muscle:*

- 1) **Subscapularis**
- 2) Infraspinatus
- 3) Serratus Ventralis
- 4) Triceps brachii

6. *Identify the bone:*

- 1) Femur
- 2) Scapula
- 3) Tibia
- 4) **Aitch Bone**

7. *Identify the bone:*

- 1) **Costae**
- 2) Humerus
- 3) Metatarsal
- 4) Sternum

8. *Identify the bone:*

- 1) Cervical vertebra
- 2) **Thoracic vertebra**
- 3) Lumbar vertebra
- 4) Coccygeal vertebra

9. *Identify the bone*

- 1) Femur
- 2) **Scapula**
- 3) Tibia
- 4) Aitch Bone

10. *Identify the bone*

11. **Transverse process**
12. Rib
13. Thoracic Vertebra
14. Femur

TEAM ACTIVITY #3 – RETAIL ID SCENARIOS AND SMOKED HAM RANKING

1. Which of the following cuts would not be considered safe to eat immediately after reaching an internal temperature of 145°F? **C**
2. Which of the following cuts would be least ideal for cooking outdoors on a gas grill? **D**
3. Which of the following cuts would most effective to feed a family of five on a budget, if all of the packages are the same total retail price? **B**
4. If you were the head chef at a high end, white tablecloth restaurant, which steak would be the best option to serve your customers? **B**
5. If you are hosting a dinner party and plan on cooking with a dry heat method, which of the following should provide the most tender end product.? **D**

Smoked Bone-in Ham Info

Rank the hams based on cutability, quality & curing characteristics

Composition – look for lean to fat ratio, leaner is preferred. Size of ham is also important. The more ham center slices you can make is preferred. Less fat, either external, seam or star fat is preferred.

Cured meat appearance – Look for uniform, pink cured color. Two-toning and gray areas are not acceptable

Placing	Cuts
3 – 4 – 2 – 1	6 – 2 – 4

TEAM ACTIVITY #4 – PORK SALAMI FORMULATION

You are in charge of formulating a batch of salami requiring 1,000 lbs of ground meat. The company's goal is to produce the highest quality Italian dry salami possible with the lowest cost formulation from the ingredients available.

Required specifications for meat ingredients and the finished batch:

1. Ingredients must be all boneless pork
2. Ingredients must be between 20° F and 30° F
3. No variety meats may be used
4. Lean/Fat Content: 72% lean/28% Fat
5. Batch Size: 1,000 lbs

Select the **two proper ingredients** that meet all specifications and that will achieve the desired fat requirement at the lowest cost.

Product	Pounds Available	Temperature (°F)	Lean Content	Cost/Pound
Pork Trimmings 65	200	25	65%	\$1.20
Pork Back Fat	400	0	12%	\$0.50
Pork Cushions	800	28	85%	\$1.83
Beef Trimmings	500	24	60%	\$0.89
Pork Trimmings 45	600	25	45%	\$0.90
Fresh pork legs (bone-in)	850	29	90%	\$0.42
Pork blade meat	1100	26	75%	\$1.62
Pork hearts	1200	21	90%	\$0.70

Meat Formulation Problem Solving Solution

Which of the following was the least cost formulation meeting all specifications for a 1,000 lb batch?

1. Pork trimmings 65 and pork cushions
2. Pork back fat and pork cushions
3. Beef trimmings and pork cushions
- 4. Pork trimmings 45 and pork cushions**
5. Pork trimmings 65 and pork blade meat
6. Pork trimmings 45 and pork blade meat
7. Pork trimmings 45 and pork hearts
8. Pork trimmings 45 and fresh pork legs
9. Pork fat and pork blade meat
10. Beef trimmings and pork blade meat

Meat Formulation Problem-Solving Questions

1. What was the price per pound of the correct least cost formulation for a 1,000 lb final batch?
 - a. \$1.42
 - b. \$1.49
 - c. \$1.53**
 - d. \$1.55
 - e. None of the above
2. Of the two ingredients chosen, how many pounds of the FATTER ingredient were used?
 - a. 650
 - b. 300
 - c. 325**
 - d. 100
3. Of the two ingredients chosen, how many pounds of the LEANER ingredient were used?
 - a. 900
 - b. 675**
 - c. 700
 - d. 350
4. How many products were excluded due to being outside the temperature specification?
 - a. 0
 - b. 1**
 - c. 2
 - d. 3
 - e. 4
5. Which ingredient could not be used due to an insufficient amount of available product for the 1,000 lb batch?
 - a. Pork trimmings 65**
 - b. Pork back fat
 - c. Beef Trimmings
 - d. Pork Trimmings 45
 - e. All ingredients had a sufficient amount available to blend into a 1,000 lb batch
6. Which ingredient did not meet the product specifications and therefore could not be used?
 - a. Pork back fat
 - b. Beef Trimmings
 - c. Fresh pork legs
 - d. Pork Hearts
 - e. All of the above ingredients did not fit the specification and could not be used**
7. Which raw material ingredient had the greatest fat percentage?
 - a. Fresh Pork legs
 - b. Pork Cushions
 - c. Pork Trimmings 45
 - d. Pork Back Fat**
 - e. Pork Cushions
8. If we were to formulate a 100 lb sample batch, which two ingredients would make the least cost formulation?
 - a. Pork trimmings 65 and pork cushion**
 - b. Pork trimmings 65 and pork blade meat
 - c. Pork trimmings 45 and pork cushion
 - d. Pork trimmings 45 and pork blade meat
 - e. None of the above

RETAIL CUTS IDENTIFICATION

Retail ID #	Species	Primal	Retail Cut	Cooking Method	Species	Primal	Retail Cut	Cooking Method
1	P	F	53	D	Pork	Loin	Sirloin Cutlets	Dry
2	P	F	95	D	Pork	Loin	Smoked Pork Loin Rib Chop	Dry
3	P	F	70	D	Pork	Loin	Loin Chops	Dry
4	B	F	60	D	Beef	Loin	Top Loin Steak, Bnls	Dry
5	B	F	49	D	Beef	Loin	Porterhouse Steak	Dry
6	B	C	48	M	Beef	Chuck	Mock Tender Steak	Moist
7	P	N	83	D/M	Pork	Various	Pork Cubed Steak	Dry/Moist
8	B	F	56	D	Beef	Loin	Tenderloin Steak	Dry
9	P	F	75	D	Pork	Loin	Top Loin Chops, Bnls	Dry
10	P	F	68	D	Pork	Loin	Butterflied Chops Bnls	Dry
11	B	F	62	D	Beef	Loin	Top Sirloin Steak, Bnls	Dry
12	B	G	54	D/M	Beef	Plate	Skirt Steak, Bnls	D/M
13	B	I	08	D/M	Beef	Round	Bottom Round Roast	Dry/Moist
14	B	G	28	M	Beef	Plate	Short Ribs	Moist
15	P	L	32	D/M	Pork	Spareribs	Pork Spareribs	Dry/Moist
16	B	I	14	D/M	Beef	Round	Eye Round Roast	Dry/Moist
17	L	H	71	D	Lamb	Rib	Rib Chops	Dry
18	B	F	55	D	Beef	Loin	T-bone Steak	Dry
19	B	I	61	D	Beef	Round	Top Round Steak	Dry
20	B	H	45	D	Beef	Rib	Ribeye Steak, Bnls	Dry
21	B	I	09	D/M	Beef	Round	Bottom Round Rump Roast	Dry/Moist
22	P	F	37	D	Pork	Loin	Top Loin Roast, Bnls	Dry
23	B	I	46	D/M	Beef	Round	Eye Round Steak	Dry/Moist
24	P	M	69	D/M	Pork	Various	Country Style Ribs	Dry/Moist
25	B	D	47	D/M	Beef	Flank	Flank Steak	Dry/Moist
26	P	E	96	D	Pork	Ham/Leg	Smoked Ham, Rump Portion	Dry
27	L	H	23	D	Lamb	Rib	Rib Roast, Frenched	Dry
28	P	K	17	M	Pork	Side/Belly	Fresh Side	Moist
29	P	F	12	D	Pork	Loin	Center Rib Roast	Dry
30	P	F	67	D/M	Pork	Loin	Blade Chops, Bnls	Dry/Moist