

Meats Evaluation and Identification

Nebraska State Agricultural Education

Career Development Events

Rules (Revised 8/2016)

Dennis Burson; Chad Schimmels; Mike Kozeal; Mark Bloss

Contest General Rules

A. Phases and Length of Contest

1. **Contest.** The Meats Identification Contest is composed of five (5) classes (50 points each), one (1) set of ten (10) questions from two of the placing classes (50 points), beef carcass quality grading, yield grading and pricing (60 points), thirty (30) retail cuts for identification (180 points), a written test consisting of twenty (20) questions (60 points), and a laboratory practicum (10 questions, 50 points). Total points for the contest is 650.
2. **Placing Classes.** The five (5) classes (50 points each) will be selected from:
 - a. Rank Four Beef Carcasses
 - b. Rank Four Wholesale Cuts of Beef
 - c. Rank Four Pork Carcasses
 - d. Rank Four Wholesale Cuts of Pork
 - e. Rank Four Lamb Carcasses
 - f. Rank Four Retail Cuts; steaks, roasts or chops of fresh retail cuts of beef, pork, or lamb.
 - g. Rank Four Retail Cuts of cured, and/or smoked retail cuts.
 - i. cured/smoked center ham slices, shank or rump portion of ham
 - ii. cured/smoked boneless ham
 - iii. cured/smoked sliced bacon
 - iv. fresh pork sausage
 - v. cured/smoked smoked sausage

Scores for the placing classes will be determined by using “cuts” for the top, middle and bottom placing and compared to the official placing for the class. Total of 250 points for five classes.

3. **Placing Class Questions:** One set of ten questions will be asked covering two of the above placing classes. A total of ten questions covering both classes will be asked, meaning that five questions could be used over one class and five questions could be asked over another class. The placing classes with questions will be identified and students will be allowed to take notes during the placing class. However, the use of notes will not be allowed when answering questions. Each question will be worth 5 points. A total of 50 points for 10 questions.
4. **Beef Carcass Quality Grading, Yield Grading and Pricing:** Participants will quality grade, yield grade and price two beef carcasses. Quality Grading: The USDA quality grade should be determined to the nearest 1/3 of a grade (10 points for a correct answer, 8 points for a 1/3 grade deviation, 5 points for a 2/3 grade deviation, 1 point for a full grade deviation, and 0 points for all others). Yield

Grading: The USDA Yield Grade will be determined to the nearest 1/3 of a Yield grade (10 points for a correct answer, 7 points for a 1/3 grade deviation, 4 points for a 2/3 grade deviation, 1 point for a full grade deviation, and 0 points for greater than a full grade deviation). Pricing will be determined from a grid that includes quality grade, yield grade, carcass weight and other carcass factors (10 points for a correct answer, 1 point deduction for each \$1.00 deviation from the official answer). Total of 20 points for pricing two carcasses. Total of 60 points for quality grading, yield grading, and pricing of two carcasses

5. **Retail Cut Identification:** Thirty (30) retail cuts of meat to be identified. Contestants will identify the retail cut species name (1 point), the wholesale or primal name (2 points) and the retail cut name (3 points) for a total of 6 points per retail cut. Total of 180 points for 30 retail cuts.
 6. **Test:** A written test of 20 questions relating to meat selection, storage, cookery, nutrition, and food safety will be given. Each question will be valued at 3 points. Total of 60 points for 20 questions.
 7. **Laboratory Practicum:** A laboratory practicum will cover one of the following meat science topics: meat color, marbling scores, fat thickness evaluation, and ribeye area (beef) evaluation. The answers will be multiple choice and will be based on scales for marbling scores, color scores, fat thickness by tenths of inches and Preliminary Yield Grade (PYG), and ribeye area by 1.0 square inches. Each correct answer is 5 points, one deviation from the correct answer will be worth 3 points, and all deviations greater than 1 deviation will be worth 0 points. Total of 50 points for 10 questions.
- B. **Time:** Contestants will be allowed 10 minutes to place each of the placing classes, 10 minutes to answer the 10 questions, 10 minutes for identification of 10 retail cuts, 10 minutes for answering the 20 test questions, and 10 minutes for the laboratory practicum questions.
- C. Identification of retail cuts.
1. Retail meat cuts will be identified according to the "Uniform Retail Meat Identity Standards" on the web at:
<http://beefretail.com/CmDocs/BeefRetail/URMIS/introduction.pdf>
 2. "The Guide to Identifying Meat Cuts" can be used for student training and is available from the American Meat Science Association, 111 North Dunlap Avenue, Savoy, IL 61874, www.meatscience.org. Ph 217-356-3182.
 3. Learning lessons, aids, and pictures from previous contests can be found at:
<http://animalscience.unl.edu/web/anisci/ansccareerdevelopmenteventsmeatevalandid>
- D. Placing Classes
1. The "Meat Evaluation Handbook" will be used as the guide for the placing classes. The book is available from the American Meat Science Association, 111 North Dunlap Avenue, Savoy, IL 61874, www.meatscience.org. Ph 217-356-3182.
 2. Study guides for cured/smoked and processed meats will be developed
- E. Beef Grading and Pricing
1. Beef carcass grading will be applied according to USDA standards described the publication "Agricultural Marketing Service, United States Standards for Grades

of Carcass Beef” which can be found at:

<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELDEV3002979>

2. The North Central regional Extension Publication #357 “Quality and Yield Grades for Beef Carcasses” is available at:
<http://digitalcommons.unl.edu/extensionhist/358>
3. Beef pricing will be based on a pricing grid for Yield and Quality grades with adjustments for other carcass factors. An example is given in the table below:

Quality Grade	Yield Grade				
	1	2	3	4	5
Prime	\$209.00	\$207.00	\$205.00	\$201.00	\$199.00
Choice	\$207.00	\$205.00	\$203.00	\$199.00	\$197.00
Select	\$205.00	\$203.00	\$201.00	\$197.00	\$195.00
Standard	\$163.00	\$162.00	\$160.00	\$156.00	\$154.00
Discounts					
>999 HCW	Subtract \$25.00 from the price				
950-999 HCW	Subtract \$5 .00 from the price				
<650 HCW	Subtract \$15.00 from the price				
Dairy Type	Subtract \$12.00 from the price				
Dark Cutters	Subtract \$35.00 from the price				
Excessive Trim into major Primal cuts	Subtract \$10.00 from the price				

HCW = Hot Carcass Weight

Pricing scoring is 10 points for a correct answer and 1 point deduction for each \$1.00 deviation from the official answer, and 0 points for any answer with a \$10.00 deviation or greater from the official answer.

- F. The laboratory practicum will cover a topic of meat science and an information fact sheet for the topic will be posted at: <http://animalscience.unl.edu/meats/aged/agedu.htm>.
- G. The test will cover meat science topics related to the contest and an example will be posted at:
<http://animalscience.unl.edu/web/anisci/anisccareerdevelopmenteventsmeatevalandid>

Species	Primal	Retail Cut	Species	Primal	Retail Cut
Lamb					
Lamb	Breast	Ribs (Denver Style)	L	A	24
Lamb	Leg	American Style Roast	L	E	01
Lamb	Leg	Center Slice	L	E	44
Lamb	Leg	Frenched Style Roast	L	E	16
Lamb	Leg	Leg Roast, Bnls	L	E	18
Lamb	Leg	Sirloin Chops	L	E	73
Lamb	Leg	Sirloin Half	L	E	31
Lamb	Loin	Loin Chops	L	F	70
Lamb	Loin	Loin Roast	L	F	19
Lamb	Rib	Rib Chops	L	H	71
Lamb	Rib	Rib Chops Frenched	L	H	72
Lamb	Rib	Rib Roast	L	H	22
Lamb	Rib	Rib Roast, Frenched	L	H	23
Lamb	Shoulder	Arm Chops	L	J	65
Lamb	Shoulder	Blade Chops	L	J	66
Lamb	Shoulder	Square Cut	L	J	33
Lamb	Various	Shank	L	N	88
Variety Meats					
Beef	Variety	Heart	B	M	76
Lamb	Variety	Heart	L	M	76
Pork	Variety	Heart	P	M	76
Beef	Variety	Kidney	B	M	77
Lamb	Variety	Kidney	L	M	77
Pork	Variety	Kidney	P	M	77
Beef	Variety	Liver	B	M	78
Lamb	Variety	Liver	L	M	78
Pork	Variety	Liver	P	M	78
Beef	Variety	Oxtail	B	M	79
Beef	Variety	Tongue	B	M	80
Lamb	Variety	Tongue	L	M	80
Pork	Variety	Tongue	P	M	80
Beef	Variety	Tripe	B	M	81

Training Form for Quality Grading and Yield Grading of Beef Carcasses

Name: _____

Carcass Number	PYG		Hot Carcass Weight	REA Required	REA		% KPH		Yield Grade
	Est.	Adj.			Est.	Adj.	Est.	Adj.	
1.									
2.									
3.									
4.									
5.									

Yield Grade 1 **Yield Grad 2** **Yield Grade 3** **Yield Grade 4** **Yield Grade 5**
 High = 1.0-1.3 High = 2.0-2.3 High = 3.0-3.3 High = 4.0-4.3 High = 5.0-5.3
 Avg. = 1.4-1.6 Avg. = 2.4-2.6 Avg. = 3.4-3.6 Avg. = 4.4-4.6 Avg. = 5.4-5.6
 Low = 1.7-1.9 Low = 2.7-2.9 Low = 3.7-3.9 Low = 4.7-4.9 Low = 5.7-5.9

Place the Yield grade and corresponding letter (H=High, A= Average, L=Low) in the Yield Grade Column. Ten points are allowed for the correct grade on each carcass, 7 points for a 1/3 grade deviation, 4 points for a 2/3 grade deviation, 1 point for a full grade deviation, and 0 points for greater than a full grade deviation.

Carcass Number	Maturity	Marbling	Quality Grade
1.			
2.			
3.			
4.			
5.			

Prime High = Pr + Choice High = Ch+ Select High = Se + Standard High = St +
 Prime Avg. = Pr o Choice Avg. = Ch o Select Low = Se - Standard Low = St -
 Prime Low = Pr - Choice Low = Ch -

Commercial, Utility, Canner and Cutter grades will not be used in the contest. Place the grade in the column for quality grade. Ten points are allowed for the correct grade on each carcass, 8 points for a one-third grade deviation, 5 points for two-thirds grade deviation, 2 points for one full grade deviation, 0 points for all others.

Carcass Number	Quality Grade	Yield Grade	Discounts	Price/cwt
1.				
2.				
3.				
4.				
5.				

Determine the carcass price per cwt based on the grid provided. Pricing scoring is 10 points for a correct answer and 1 point deduction for each \$1.00 deviation from the official answer, and 0 points for any answer with a \$10.00 deviation or greater from the official answer.

Retail Cuts Code Sheet

SPECIES - 1 Point

B- Beef

P- Pork

L- Lamb

PRIMAL CUTS- 2 Points

- | | | |
|---------------|----------------|------------------|
| A. Breast | F. Loin | K. Side (Belly) |
| B. Brisket | G. Plate | L. Spareribs |
| C. Chuck | H. Rib or Rack | M. Variety Meats |
| D. Flank | I. Round | N. Various Meats |
| E. Ham or Leg | J. Shoulder | |

RETAIL CUTS - 3 points

Roasts/ Pot Roasts

1. American Style
2. Arm Picnic
3. Arm Roast
4. Arm Roast (Bnls)
5. Back Ribs
6. Blade Roast
7. Blade Boston
8. Bottom Round Roast (Bnls)
9. Bottom Round Rump Roast (Bnls)
10. Brisket, Whole (Bnls)
11. Center Loin Roast
12. Center Rib Roast
13. Eye Roast (Bnls)
14. Eye Round Roast
15. Flat Half (Bnls)
16. Frenched Style
17. Fresh Side
18. Leg Roast (Bnls)
19. Loin Roast
20. Mock Tender Roast
21. Petite Tender
22. Rib Roast
23. Rib Roast (Frenched)
24. Ribs (Denver Style)
25. Rump Portion
26. Seven (7) Bone Roast
27. Shank Portion
28. Short Ribs
29. Shoulder Roast (Bnls)
30. Sirloin Roast
31. Sirloin Half
32. Spareribs
33. Square Cut (Whole)
34. Tenderloin (Whole)
35. Tip Roast (Bnls)
36. Tip, Cap Off Roast (Bnls)
37. Top Loin Roast (Bnls)
38. Top Roast (Bnls)
39. Top Round Roast
40. Tri-Tip Roast

Steaks

41. Arm Steak
42. Blade Steak
43. Bottom Round Steak
44. Center Slice
45. Eye Steak (Bnls)
46. Eye Round Steak
47. Flank Steak
48. Mock Tender Steak
49. Porterhouse Steak
50. Ribeye, Lip-on Steak
51. Round Steak
52. Round Steak (Bnls)
53. Sirloin Cutlets
54. Skirt Steak (Bnls)
55. T-Bone Steak
56. Tenderloin Steak
57. Tip, Cap Off Steak
58. Top Blade (Bnls) Flat Iron Steak
59. Top Loin Steak
60. Top Loin (Bnls) Steak
61. Top Round Steak
62. Top Sirloin Steak (Bnls)
63. Top Sirloin Cap Off Steak (Bnls)
64. Top Sirloin Cap Steak (Bnls)

Chops

65. Arm Chop
66. Blade Chop
67. Blade Chop (Bnls)
68. Butterflied Chop (Bnls)
69. Country Style Ribs
70. Loin Chop
71. Rib Chop
72. Rib Chop (Frenched)
73. Sirloin Chop
74. Top Loin Chop
75. Top Loin Chop (Bnls)

Variety Meats

76. Heart
77. Kidney
78. Liver
79. Oxtail
80. Tongue
81. Tripe
- Various Meats**
82. Beef for Stew
83. Cubed Steak
84. Ground Beef
85. Ground Pork
86. Hocks
87. Sausage Link/Pattie
88. Shank

Smoked/Cured

89. Brisket, Corned
90. Center Slice
91. Ham (Bnls)
92. Hocks
93. Loin Chop
94. Picnic (Whole)
95. Rib Chop
96. Rump Portion
97. Shank Portion
98. Slab Bacon
99. Sliced Bacon

Practice Meat Identification Card

Name: _____

Cut #	Species	Primal Cut	Retail Cut	Score
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				