Michigan 4-H Meats Judging Contest/ FFA Meats Evaluation & Technology Career Development Event

Anthony Hall – MSU Meats Lab

Wednesday, May 12, 2027

9:00 am – Pick up judging packets
9:30 am – Contest begins

The rules and entry forms for this contest are also located on the Michigan FFA website: Meats Evaluation

All entries are to be received by April 26, 2027. No late registrations will be accepted. If you have questions, please contact Kevin Nugent at 517-432-0756 or nugentke@msu.edu. Please mail registration fees ($10 per contestant) to Michigan FFA Association, 480 Wilson Rd., Rm. 148 Nat. Res., East Lansing, MI 48824. Please make checks payable to: Michigan State University – FFA. Payments may also be made by credit card via Cashnet at: https://commerce.cashnet.com/ msu_3708.

The Michigan 4-H Meats Judging Contest/FFA Meats Evaluation and Technology Career Development Event, is a collaborative effort between Michigan 4-H and Michigan FFA. By participating, contestants show their ability to evaluate carcasses and identify meats. This contest will include individual and team competition. The contest will include three beef classes, three pork classes, identification of 20 retail cuts, yield grade and quality grade three beef carcasses and answer one set of questions. Additionally, 4-H members will give one set of oral reasons and FFA members will complete a multiple choice test.

AGE ELIGIBILITY for JUNIOR 4-H DIVISION:
The Junior 4-H Division is open to youth ages 8 to 13 as of **January 1** of the current year.

AGE ELIGIBILITY for SENIOR 4-H DIVISION:
The Senior 4-H Division is open to youth ages 14 to 19 as of **January 1** of the current year. *To compete at the National 4-H Meat Judging Contest, contestants must be ages 14-18*

AGE ELIGIBILITY for FFA MIDDLE SCHOOL DIVISION:
The FFA Middle School Division is open to youth that just completed their 7th and 8th grade year. Awards will only be given to teams in the FFA division.

AGE ELIGIBILITY for FFA HIGH SCHOOL DIVISION:
The FFA High School Division is open to youth that just completed their 9th, 10th, 11th and 12th grade year. Awards will only be given to teams in the FFA division.

MSU is an affirmative-action, equal-opportunity employer. Michigan State University Extension programs and materials are open to all without regard to race, color, national origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status or veteran status. Accommodations for persons with disabilities may be requested by contacting Kevin Nugent at 517-432-0756 by May 1, 2026 to make arrangements. Requests received after this date will be fulfilled when possible.

CONTESTANT REQUIREMENTS:

1. Contestants must come prepared to work in a freezer storage area for two hours (0-3 Celsius). Heavy sweaters, coats, head cover and other warm attire are highly recommended. ***In addition, contestants must provide their own hard hats and clean, white lab coats to wear while working in the cold storage area. Contestant's footwear must also be clean and free of any mud or foreign material before entering the coolers.*** Clipboards are also useful and contestants will be required to use #2 pencils.

2. Any contestant participating is eligible to compete as an individual. 4-H contestants are eligible for individual and team awards. Only teams will be recognized in the FFA divisions.

3. Each team can be made up of three or four members. When four are entered, the three team members with the highest score will make up the team total. All members of a 4-H team must be registered 4-H members enrolled in the same county. All members of a FFA team must be from the same FFA chapter.

4. Each contestant will be assigned a number and given his or her judging supplies. Contestants may not leave once the contest has begun. Contestants may use a clipboard and notebook paper of their choice, but cannot use bulletins or any other resource material during the contest.

5. While the contest is in progress, no talking or any other types of communication between contestants and/or coaches will be permitted. Any violation of this rule will result in the disqualification of the offending individuals or teams.

6. Team members must be approved by the 4-H team coach or FFA Chapter Advisor.

7. By participating in the contest, contestants are authorizing Michigan State University Extension/4-H to record their image and/or voice for use by Michigan State University Extension or its assignees in research, education, and promotional programs. By participating in the contest, contestants understand and agree that these audio, video, film, and/or print images may be edited, duplicated, distributed, reproduced, broadcasted, and/or reformatted in any form and manner without payment of fees in perpetuity.

Coaches and chapter advisors are expected to assist in supervising their students and maintaining order. If it is determined that any individuals that are involved with any destruction of property or criminal activity, which includes activating fire alarms, such individuals will face strict disciplinary action, and possible criminal charges. In addition, coaches may be asked to assist officials with the contest which includes serving as group leaders, time keepers, scorers, etc.

PROCEDURES:

1. A group leader will be provided for each group of contestants. The leader's duty will be to enforce the contest rules and to keep the exhibits of the contest in their orderly arrangement. Contestants are to stay with their assigned group unless given permission by the group leader.

2. Ties will be broken based on retail cut identification scores. Additional ties will be broken based on reasons/exam scores and then by questions scores.

3. Contestants must follow all rules in the contest rules section. Additionally, contestants will **not** be permitted to: A. Handle or touch cuts; B. Monopolize any exhibit for an unreasonable length of time; C. In any way willfully obstruct the work of other contestants.

SCORING:

Placing Classes:
Beef – 3 Classes:
A. Carcass 50 B. Wholesale: Wholesale class will be either rounds, loins or ribs. 50 C. Retail: Example: T-Bone Steaks 50
Pork – 3 Classes:
A. Carcass 50 B. Wholesale: Wholesale class will be either hams or loins. 50 C. Retail: Example: Pork Loin Chops 50

Total judging score possible: 300

Beef Carcass Grading:
Beef Yield Grading 24 Beef Quality Grading 24

Total grading score possible: 48

Identify 20 Retail Cuts: Beef, Pork and Lamb - Fresh, Processed or Variety: A. Name of Species (1 point each) 20 B. Name of Primal Cut (3 points each) 60 C. Name of Retail Cut (4 points each) 80 D. Recommended Cookery Method (1 point each) 20

Total identification score possible: 180

Questions on a Pork and Beef class (10 questions total) 50

Total score possible before specialized: 578

FFA Contestants Only:*
Written Exam (25 multiple choice questions) 50

FFA TOTAL CONTEST SCORE POSSIBLE: 628

4-H Contestants Only:**This year the determination on use of oral reasons will not be made until AFTER registration has closed. In the event oral reasons are not used, 4-H members will take the written test.***
Oral Reasons on a Pork or Beef class 50

4-H TOTAL CONTEST SCORE POSSIBLE: 628

* Contestants are still able to compete in both the FFA and 4-H divisions if desired. If a contestant is competing in both the 4-H and FFA divisions, they will first complete the 10 questions that will count towards both scores. They then will complete the one set of 4-H oral reasons and complete the FFA written exam.

A scantron will be used to collect all contestant judging information. Contestants will be asked to use a #2 pencil and completely mark the appropriate bubble. The scantron will be run as submitted by the contestant without corrections. Specific instructions on how to use the scantron will occur before the start of the contest as well as images at each station to remind youth which section they are completing.

Some sections of the scantron may not be utilized (Meat Formulations, Keep/Cull, and Team Activities).

CONTESTANT RULES:

1. Contestants are to determine their placing and identification without handling the meat.

2. Ribeyes may be "shaded" with a clipboard for quality grading. Scratching or feeling of buttons with fingernails will also be allowed.

3. Hands may not be used on or over the ribeyes in the yield grading classes. Feeling of kidney knobs will be permitted.

4. Contestants shall not use any mechanical aid such as a grid, ruler, tape, light, etc., in arriving at their decisions.

CLASS REQUIREMENTS:

1. All exhibits in the judging classes are to be selected from the top four grades.

2. All exhibits will be cut and trimmed exactly as the committee specifies. The contestants will not be expected to make allowance for faulty work or differences in trim.

3. An effort will be made to select meats that will hold their characteristics for the duration of the contest.

4. All exhibits within one class will be of about the same weight, so that the size of the exhibit is not a major factor in determining the placing.

5. A special effort will be made to avoid unusual conditions in the contest area which would tend to change the appearance of the exhibits during the contest.

6. A check will be made to see that all hanging exhibits in one class are on about the same length hook and at a height for best observation. Additionally, a check will be made to see that identification marks (such as plant or official federal grades or tags) are removed from every exhibit before the start of the contest.

7. The retail cuts used for the identification portion of the contest will be a random selection of retail meat cuts commonly found in most retail stores. Steaks will be cut 1 inch or less in thickness; roasts will be cut 2 inches thick or thicker. Each cut will be packaged on a tray with a clear wrapping cover with the most identifiable side displayed. Contestants may not touch retail cuts at any time.

TIME:

1. Contestants will be allowed 10 minutes in the cooler to place each judging class and take notes for reasons and/or questions.

2. One 10-minute period will be allowed for identifying each set of 10 retail cuts. There will be two rotations for retail cut identification.

OFFICIAL PLACINGS:

As soon as the contestants have finished giving oral reasons (4-H) or quiz (FFA), the official placings and cuts will be available.

PLACING CLASSES

The section on the scantron to the right of the contestant name will be used for identifying placings for the six placing classes. The contest will include three beef classes and three pork classes.

One class of wholesale pork (fresh hams or loins) and one class of wholesale beef (ribs, loins, or rounds) will be placed. Each class will consist of four carcasses or cuts to be evaluated and placed on the basis of their relative merits in cutability (relative yield of lean) quality.

BEEF CARCASS GRADING

This section will be used to quality grade 3 beef carcasses to a third of a grade. No Canner or Cutter grade carcasses will be used in the contest. This section will also be used to yield grade 3 beef carcasses to one-tenth (.1) of a grade. The possible range will be 1.0 to 5.9.

Quality Grade Scoring: A maximum of 10 points can be scored for each carcass quality graded. A deduction of one point will be made for each tenth of a grade above or below the official grade. Example: If the official is 2.0 and the contestant's estimate is 2.4, 6 points would be awarded.

Yield Grade Scoring: Official yield grades will be determined as follows:

1. Fat measurement over the ribeye converted to a Preliminary Yield Grade (PYG):

FAT	PYG
.1	2.25
.2	2.50
.3	2.75
.4	3.00
.5	3.25
.6	3.50
etc.	etc.

2. The Required Ribeye Area (RREA) for the carcass' hot weight will be determined and the Actual Ribeye Area (AREA) measured with a grid and adjustments (=) to 0.1 yield grade made per 0.3 square inch deviation from RREA.

WT. (lb.)	RREA EXAMPLE (in. 2)	ADJUSTMENT AREA of PYG
575	10.7	11.7 - 0.3
600	11.0	10.0 + 0.3
625	11.3	11.0 + 0.1
700	12.2	13.1 - 0.3
725	12.5	12.5 - 0.0

3. The amount of fat around the Kidney, Pelvic, and Heart area (KPH) will be estimated as a percentage of the hot carcass weight and adjustments (=) to .1 for each 5% from a base of 3.5%

Estimated Adjustment % KPH to PYG
1.5 - 0.4
2.0 - 0.3
2.5 - 0.2
3.0 - 0.1
3.5 0.0
4.0 + 0.1

4. Once the fat (PYG), RREA and % KPH has been estimated, adjustments will be made on the PYG as above and this will give the official final Yield Grade.

IDENTIFYING OF RETAIL CUTS (BACK of scantron):

The back part of the scantron will be used to identify 20 retail cuts from beef, lamb, and pork (cured and smoked, and variety meats). Veal cuts will not be included in the contest. Scoring is specified on the revised form. This class will be divided into 2 groups. One point is awarded for correctly identifying the species (beef, lamb or pork); three points are awarded for correctly identifying the primal cut; four points are awarded for correctly identifying the retail trade name; and one point is awarded for correctly identifying the recommended cookery for a total of ten points for each retail cut.

ALL Contestants:

Question Classes:

1. Each contestant will answer one set of ten questions on one or two different classes for a total of ten questions. The question classes will be chosen by the judges and announced to the contestants at the start of the contest. Contestants may not use notes while answering questions, but they will be able to take notes during the contest to study before the question session begins.

2. After all placings and identification classes have been completed by contestants; there will be a 10 minute study period to review notes before the questions are asked.

Example questions may include:

1. Which beef carcass had the largest ribeye?
2. Which ham was trimmest beneath the butt face?
3. Which carcass had the highest cutability?
4. Which carcass had the most marbling?

4-H ONLY:

Oral Reasons:

This year the determination on use of oral reasons will not be made until AFTER registration has closed. In the event oral reasons are not used, 4-H members will take the written test.

1. Each 4-H contestant will give one set of oral reasons. The reasons classes will be chosen by the judges and announced to the contestants at the start of the contest. Contestants may not use notes while giving oral reasons, but they will be able to take notes during the contest to study before being called upon to speak their reasons.

2. Oral reasons may not exceed 2 minutes for any one class.

3. A set of reasons should be given to the judges in the order that the contestant placed the class. Both criticisms and grants for placing each class should be included in the reasons.

4. After all placings and identification classes as well as the questions class have been completed; there will be a 10 minute study period before the oral reasons sessions are started.

FFA ONLY:

Written Exam:

1. Each FFA contestant will complete a multiple choice written exam. Contestants may not use notes of any kind while completing the exam. The exam will relate to meat storage and handling, cookery, nutrition, food safety (HACCP principles, bio-security and personal safety), animal welfare and animal identification systems. Each question is worth two points.

2. All questions will be based on materials taken from the "Meat Science and Food Safety" DVD available through CEV Multimedia as listed on the print resource list.

Sample Written Exam Questions:

1. Which Act was originally passed in 1958, amended in 1978 and required for animals whose meat would be sold to federal agencies?

A. Pure Food & Drug Act
*B. Humane Slaughter Act
C. Wholesome Meat Act
D. Packers and Stockyards Act

2. What factors are required for meat to be determined "organic"?

A. The animal is antibiotic free
B. The animal has only consumed certified organic feed
C. The meat is processed at a facility approved for organic meat processing *D. All of the above

ONLINE RESOURCES:

A variety of online and print resources exist to aid in meat selection and evaluation. The following resources may aid in preparing youth to participate in the state contest:

Beef Myology (detailed look at muscle and skeletal anatomy):
https://bovine.unl.edu/index.php/

Texas A & M Aggie Meat (images and practice classes):
http://aggiemeat.tamu.edu/meat-identification-pictures/

Texas A & M Department of Animal Science: 4-H Meat Judging – Online Training: http://animalscience.tamu.edu/academics/meat-science/4h/meat-judging/

University of Florida Department of Animal Science - Meat Science (judging classes and ID): https://animal.ifas.ufl.edu/extension/meat-extension/

PRINT RESOURCES:

American Meat Science Association
2441 Village Green Place, Champaign, IL 61874, (800) 517-2672
Meat Evaluation Handbook:
http://www.meatscience.org/students/meat-judging-program/meat judging-resources/meat-evaluation-handbook

CEV Multimedia -
http://www.cevmultimedia.com/index.php?p=product&id=1595 1020 SE Loop 289, Lubbock, TX 79404, (800) 922-9965
• Meat Science and Food Safety (PowerPoint) - written exam resource
• Retail Cuts Identification (DVD)
• Meat Judging and Grading (DVD)

NASCO
901 Janesville Avenue, P.O. Box 901, Fort Atkinson, WI 53538, (800) 558-9595 • Preliminary Yield Grade Rulers (https://www.enasco.com/p/USDA-Preliminary-Cutability Grade-Ruler%2BC02615N)

National Cattlemen's Beef Association - https://store.beef.org/ (Click on Beef Retail) 9110 E. Nichols Ave. #300, Centennial, CO 80112, (303) 694-0305/1-800-368-3138 • USDA Marbling Photographs
• Cuts Chart

National FFA Core Catalog –
https://shopffa.org/products/129/CDE/&pageSize=36 • Retail Meat Instructional Materials/Instructor Combo Pack
• Retail Meat Team Combo Pack
• Retail Meats Field Guide
• Retail Meats Flash Cards
• Meat Identification Tutorial CD-ROM
• Meat Buyer's Guide – 8th Edition
• NAMP Meat Lamb and Pork Cut Charts

NOTE:

This contest is designed to provide youth an opportunity to demonstrate abilities needed for successful meat selection and evaluation. ***CONTESTANTS SHOULD BE ADEQUATELY PREPARED FOR THE CONTEST.*** *They should be instructed on the procedures for the contest, meat cut identification, and the factors considered in grading and placing meat carcasses.*