Illinois Association of Vocational Agriculture Teachers
Meats Evaluation and Technology Career Development Event

Contest Superintendent – Kent Weber, Seneca
Assisted by - FFA Board of Directors members
IAVAT CDE Committee Member – Jason Kilburn, Monmouth-Roseville
Host – Nick Wherley, ITCS Media/Communications Specialist

A. General Information

a) **Team:** A team shall consist of five (5) participants. The three (3) individuals with the highest score shall constitute the team score.

b) **Placings/Scoring:** Official ring placings and reasons will be given immediately following completion of the event.

c) **Scorecards:** Watch iavat.org site for updates on new scorecards to be used this year

d) **Team Event:** The Ground Meat Formulation Problem will be solved cooperatively by all team members at the beginning of the event. It is worth 50 points per team

e) **Miscellaneous:**
   a. Part of the event is held in a cold storage room (25 to 30ºF), dress appropriately.
   b. Participants may use non-programmable (will not store formulas), battery operated calculators if they provide them.
   c. Calculators may not be shared.
   d. Participants should not have any measuring devices during competition.
   e. Participants should have clipboards and #2 pencils for use during the CDE.
   f) All participants in the Meats Evaluation and Technology CDE will be required to wear a smock and hair net provided by the participants' chapter. Disposable frocks and hairnets are acceptable. Ball caps, visors, and the like are not acceptable. The host will not provide smocks or hairnets. Participants failing to comply will be disqualified.

f) **Additional Information:** Refer to the "General Rules" section for the current year for information concerning **Entry Fees, Registration** and **Location** of the event.

B. Event Format

1. Placing Rings: 5 rings (50 points each) from the following list. (Meat cannot be handled):
   a. Beef carcasses
   b. Pork carcasses
   c. Lamb carcasses
   d. Wholesale/sub-primal pork cuts
   e. Wholesale/sub-primal beef cuts
   f. Beef retail cuts - one of the following options
      ● Ribeye Steak
      ● Top Loin Steak
      ● Boneless Loin Steak
      ● Bone-in Loin Steak (includes both T-bone and Porterhouse steaks)
   g. Pork retail cuts - one of the following options
      ● Smoked Ham Center Slice
      ● Rib Chop
      ● Loin Chop

- Center Rib Roast
- Blade Steak

 h. Lamb retail cuts - one of the following options
- Arm Chop
- Rib Chop
- Loin Chop
- Square Cut Shoulder Roast

2. Grade one ring of six (6) beef carcasses for QUALITY. [**Scoring Note:** Fifteen points are added to the participant's score for correctly identifying the Quality Grade, twelve points for being off 1/3 grade, eight points for being off two 1/3 grades, three points for being off three 1/3 grades and zero for missing the correct grade by four or more places. The quality grading ring is valued at 90 points]

3. Grade one ring of six (6) beef carcasses for YIELD. [**Scoring Note:** Fifteen points are added to the participant's score for correctly identifying the Yield Grade, twelve points for being off 1/10 grade, eight points for being off two 1/10 grades, three points for being off three 1/10 grades and zero for missing the correct grade by four or more places. The quality grading ring is valued at 90 points]

Yield Grade 1 (YG1)	Yield Grade 2 (YG2)	Yield Grade 3 (YG3)	Yield Grade 4 (YG4)	Yield Grade 5 (YG5)
High - 1.00 - 1.33	High - 2.00 - 2.33	High - 3.00 - 3.33	High - 4.00 - 4.33	High - 5.00 - 5.33
Avg. - 1.34 - 1.66	Avg. - 2.34 - 2.66	Avg. - 3.34 - 3.66	Avg. - 4.34 - 4.66	Avg. - 5.34 - 5.66
Low - 1.67 - 1.99	Low - 2.67 - 2.99	Low - 3.67 - 3.99	Low - 4.67 - 4.99	Low - 5.67 - 5.99

4. Identify one ring of thirty (30) retail cuts of meat. [**Scoring Note:** Participant's receive one point for correctly identifying the species, two points for correctly identifying the primal cut, and three points for correctly identifying the retail cut. There are a total of six points possible for each cut making this portion of the event worth 180 points.] The Primal and Retail cuts of meat and the code that is required for the Scantron answer sheet are listed on the "Meats Retail ID List". Both the "Meats Retail ID List" and an example of the Scantron answer sheet are available at the IAVAT website along with a copy of these rules. *IMPORTANT: Please note that Cookery Methods listed on the National FFA Retail Cuts Code Sheet (Meats Retail ID List) and on the Scantron answer sheet will not be used in this event.*

5. **Team Event.** All team members will be responsible for cooperatively solving a Ground Meat Formulation Problem. <u>Round decimals for the final answer only</u>. [**Scoring Note:** The team event is valued at 50 points]

Sample problem: Assume that you manage a meat plant that manufactures ground beef for a chain of retail stores. Your goal is to produce a fresh, wholesome product that complies with all meat inspection regulations and will have three days' shelf life in the meat case. The fat content must comply with the specifications of the stores. The cost of the product should be as low as possible.

Rounding a decimal: 5-9 will be rounded up; 1-4 will be rounded down. <u>Remember, do not round numbers until you get to your final answer</u>.

Example:	**From preceding information:**

Use the Pearson Square to formulate a batch of ground beef to the desired fat content.

(A) 10%   (D) 5

                          20%

(B) 25%   (E) 10

                                                   15 (Sum)

Meats:
(1) Boneless cow meat (10% fat--$.99/lb.)
(2) 75% lean beef trimmings (25% fat--$.79/lb.)

Proportions:

Desired Final Fat Content: 20%
Batch Size: 1,000 lbs.

(1) Boneless cow = 5/15 = 0.33
    (x 1,000 lbs. = 330 lbs.)

Determine:
a. The amounts of the two types of meat that must be blended together to give the desired fat content.
b. The meat cost of the finished product.

(2) 75% Beef trim = 10/15 = 0.67
    (x 1,000 lbs. = 670 lbs.)

Verify Final Fat Content:
330 lbs. X 0.10 (fat) = 33 lbs.
670 lbs. X 0.25 (fat) = <u>167 lbs</u>.
                          = 200 lbs. Fat/1,000 lbs.
                            Batch (20% fat)

Cost per Pound:
Boneless cow meat 0.33 x $.99/lb .= .327
75% trim   0.67 x $.79/lb. = <u>.529</u>
                                                    .856

$.86/lb.

Pearson Square

(A)	(D)
Fat Content	Difference Between
of Meat 1	B and C

(C)
Desired Fat Content
of Finished Batch

(B)	(E)
Fat Content	Difference Between
of meat 2	<u>A and C</u>
	Sum of (D) and (E)

Proportion of ingredient (A) = (D)/(Sum)
Proportion of ingredient (B) = (E)/(Sum)

Suggested References

ITCS University of Illinois
> MDS100a Retail Meat Cut Identification CD-ROM (revised)
> MDS100a-10 Retail Meat Cut Identification Quiz Pack CD-ROMs (revised)
> X180c Retail Meat Cut Identification Flash Card Set (revised)
> X183 Beef/Pork/Lamb/Variety Cuts Poster Set (new)
> > https://pubsplus.illinois.edu/X183.html
> J180f Meat Judging and Grading ADD
> > https://pubsplus.illinois.edu/J180f.html
> A catalog of instructional materials is available from ITCS Instructional Materials at
> > https://pubsplus.illinois.edu/. To place an order please call 1-800-345-6087, fax your order to 217-333-3917, or email pubsplus@illinois.edu

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Aid for ordering non-Scantron cards:

No. of teams x No. of participants per team x No. of rings = No. of cards needed, i.e., 20 teams x 5 participants per team x 5 ring(s) = 500 cards needed.

My event: _____ teams x _____ participants per team x _____ ring(s) = _____ cards.