

## IOWA FFA LIVESTOCK EVALUATION CAREER DEVELOPMENT EVENT

### PERSONNEL

Dr. Brad Skaar, Ames, ISU, Animal Science Extension Staff ..... CDE Coordinator  
Matt Janssen, Grundy Center..... CDE Chairperson

### EVENT OBJECTIVES

1. To motivate students to learn and practice techniques of modern livestock evaluation and selection.
2. To evaluate students' abilities in livestock selection, decision-making, and oral justification of decisions.
3. To encourage classroom lessons in meat animal selection similar to real life situations faced by producers.
4. To develop an understanding and the ability to interpret performance data based on industry standards.
5. To develop the ability to select livestock that will provide increased economic returns to producers, as well as meet the needs of the industry and consumers.
6. To become proficient in communicating in the terminology of the industry.
7. To identify the criteria used in marketing livestock.

### GENERAL RULES

1. Each chapter may enter a team composed of three or four participants, with the top three scores counting for the team's total score. Team members must all be members of the same FFA chapter.
2. Participants will not be permitted to handle any breeding animals. Handling of the market and evaluation lamb classes will be permitted unless the CDE coordinator decides otherwise.
3. No team members or advisors are to observe livestock at any of Iowa State University's farms or facilities from July 1 until the event. (Exception: Iowa State University-sponsored events.)
4. Once FFA members are divided into squads, they must remain with their respective squads and not communicate with anyone except an event official until after oral reasons are completed.
5. All classes will be judged on the Iowa State University Campus.
6. Parking will be available in a designated area only. Vehicles not parked in this area may be subject to fine or towing.
7. Participants shall report to the supervisor of the event in Lush Auditorium, Kildee Hall, between 7:30 a.m. and 8:30 a.m. on event day.
8. A group leaders meeting will be held at 8:30 a.m., with the event starting at 9:00 a.m.
9. The event will be held at the same site and time as the Iowa 4-H Livestock Judging event. Registration, squads, and award programs will be separate.
10. Placing cards, worksheets, and other written materials will be furnished for each event phase.
11. Participants will be given 10- 12 minutes for each of the judging, grading, and selection classes.
12. All classes and individual animals will be identified by numbers.
13. All breeding classes will be judged on type and performance.
14. All grades of swine and cattle will not necessarily be represented in the grading classes.
15. Oral reasons will be required on three of the livestock classes. These classes will not be designated prior to the event.

16. Observers will not be permitted in the event area while the event is in progress. Some livestock classes will be left in place following the event so that FFA chapter advisors and others may view the classes and take photos of their judging team with the animals.

### EVENT ACTIVITIES

The Iowa FFA Livestock Judging Career Development Event presents students with beef, sheep, and swine classes and challenges students with competitions in four areas of livestock judging.

1. **Breeding Placing Classes** (150 points possible per FFA member)  
Three classes (heifers, ewes, and gilts) worth 50 points each are presented. Four animals per class.
2. **Market Placing Classes** (150 points possible per FFA member)  
Three classes (one per species) worth 50 points each are presented. Four animals per class.
3. **Market Evaluation Classes** (150 points possible per FFA member)  
Three classes (beef, lamb, swine) worth 50 points each are presented. Four head are presented in the swine class, and 5 head are presented in the beef and lamb classes.
4. **Oral Reasons** (150 points possible per FFA member)  
Three sets of oral reasons (one per species) on either market or breeding placing classes are required of students.

A maximum of 600 points can be earned by a student in the event.

#### 1. Breeding Placing Classes

**Purpose** – The purpose of these classes is to test a student’s ability to interpret objective performance evaluations and make selection decisions based on both the evaluations and subjective visual appraisals. Each breeding class has four head of females presented with evaluation data. These livestock may be purebred or crossbred individuals. The FFA members and officials must interpret the differences between individuals and determine a ranking based on those differences.

**Data Provided on Breed Classes** – Commonly available performance records and genetic evaluations that are routinely used by breeders in the beef, sheep, and swine industries will be presented to students to use in their decisions. All attempts will be made to provide the genetic evaluations on each animal because these are the most objective and accurate information available to livestock breeders. Selecting predictable future parents is the expected outcome of breeding animal selection. Examples of the data that may be presented with each species are given in the following tables.

**Table 1. Data to be presented on breeding heifers**

	BIRTH		WEANING		YEARLING		MATERNAL MILK
Date	Weight	EPD*	Weight	EPD	Weight	EPD	EPD

\*EPD stands for Expected Progeny Difference, is expressed in pounds, and is a measure of what a heifer will contribute genetically to her offspring. If EPDs are not available, within contemporary group adjusted weights and ratios will be given instead.

**Table 2. Data to be presented on breeding gilts**

Birth Date	Days to 230 Pounds EDP*	Last Rib Fat EPD	21 Day Litter Weight EPD	Number Born Alive EPD	Dam's EPD For SPI
*EPD stands for Expected Progeny Deviation and is a measure of what a gilt will contribute genetically to her offspring as compared to a set average. If EPDs are not available, then adjusted records and within contemporary group ratios for some or all of these traits will be presented.					

**Table 3. Data to be presented on breeding ewes**

Birth Date	Grease Fleece Wt. FEPD*	90 d. Wt. FEPD	Maternal Lambs Born FEPD	Maternal Pounds Weaned FEPD
*FEPD stands for Flock Expected Progeny Difference and is a measure of what a ewe will contribute genetically to her offspring compared to a set average. If FEPDs are not available, then growth, ratios, and lambing type (single, twin, etc.) will be presented.				

**Scenarios Defined for Breeding Classes** – The student must interpret the differences between individuals and determine a ranking based on those differences. Because the differences observed between animals can be considerable, a situation statement, called a scenario, is included with each class. A scenario is intended to give direction to the decisions a student must make by helping him/her determine priorities. A scenario is important to consider because, as in real life, different producers operate under different environments and markets. Thus, individual producers emphasize various traits differently to meet their needs. Students should learn to do this also.

A scenario may have three factors represented, regardless of species. Students should look for these factors as they interpret the scenarios, and then give emphasis in their decisions to those differences that best meet the needs of the scenario. The three factors that define a scenario are as follows:

**#1 Production Environment:**

“Will the selected animal(s) need to perform in a high stress or a low stress environment?”

Examples include: <u>High Stress</u>	<u>Low Stress</u>
low feed input	plentiful feed
adverse climate	consistent feed available year round
rough grazing terrain	moderate climate
low labor input	assistance at birthing available
confinement on concrete	pasture raised

**#2 Performance Needs:**

“What types of performance is the breeder needing from the selected animal or is the producer selling?”

Examples include: <u>Maternal Performance</u>	<u>Paternal Performance</u>
fleshing ability	rapid growth
milking ability	lean composition
adaptability to environment	muscle production

early sexual maturity  
maternal birthing ease

acceptable birth weight

In general, maternal traits eventually contribute benefits to the dam side of crossbreeding systems. Paternal traits contribute to the sire side of crossbreeding systems, especially terminal crosses. Certainly functional traits (such as minimum condition, leg, mouth, and genitalia soundness, mammary soundness, etc.) are essential needs regardless of scenario.

### #3 Marketing Goals

“Will the breeder sell or require the female selected for seedstock markets (as a replacement for the seedstock program where “genetic pieces” are sold)? Or will the selected female produce offspring for commercial production (i.e., feeder calf, pig, or lamb sales or retained ownership of feeders)?”

Scenarios may be written simply, such as:

“Rank these gilts as they should be kept in a herd that sells boars to terminal cross breeders. All pigs are raised in total confinement.”

*In this case, seedstock sales is the market goal, paternal traits are the production needs of the consumer, and the environment is stressful on the soundness of the pig.*

A more complicated scenario may read:

“Rank these heifers for use as replacements in a typical Iowa two breed crossbreeding program. All male offspring and the cull females are to be sold at weaning as feeders.”

*In this case, the production needs are primarily maternal, the market goals are commercial (the sale of feeders), and the environment is basically low stress because feed resources are usually plentiful enough in Midwest operations to support extra growth and maternal performance.*

The student should understand the major factors discussed above as they are critical to successful selection and breeding programs in livestock.

## 2. Market Placing Classes

**Purpose** – The purpose of the market placing classes is to test a student’s ability to evaluate market livestock on those factors that influence both packer and producer profitability.

**Description** – Each of the three placing classes (market beef, lambs, and hogs) has four head of any breed or breed combination. They may be male castrates or females. Live weights and average daily gains may be presented with the livestock. The officials are instructed to rank the individuals in the class from first to fourth, as they would best fulfill a producer’s need for fast growing livestock that are appealing to a packer buyer.

## 3. Market Evaluation Classes

**Purpose** – The purpose of the market evaluation classes is to test a student’s ability to evaluate the individual merit of a market animal (based on composition) from a packer viewpoint.

**Description of the Market Beef Evaluation Class** – Five head (of any sex) are presented with live weights to the students. They are instructed to record appropriate estimates of USDA quality and yield grade of each calf. In doing so, the students are to assume that they are employed by a

packing plant to determine the USDA quality grade and yield grade of this set of 5 market cattle. Official estimates will be obtained from the actual carcass measurements taken after slaughter or from ultrasound and mechanical probe estimates taken from the live animals.

**Description of Market Lamb Evaluation Class** – Five market lambs will be presented to the students. They will be instructed to estimate the fat depth and rib eye area.

**Description of Market Swine Evaluation Class** – Four head are presented with live weights to the students. They are instructed to place the class based on the relative lean pork value (RLPV) of each animal.

#### 4. Oral Reasons

**Purpose** – Oral reasons are considered the most important training that occurs in livestock judging activities. The purpose is to motivate students to develop proficiency in discussing livestock and to test their ability to defend decisions with a brief oral presentation.

**Description** – Three sets of oral reasons are to be given by each student on the placing classes. The specific classes chosen for reasons will be announced the day of the event. FFA members should be trained and encouraged to take notes on reasons classes. They should bring a clean notebook (no writing). They may use the notes they take during the event to study, but may not use them while they actually give reasons. A set of reasons should last no longer than 2 minutes and the official, at his/her discretion, may ask the FFA member questions concerning the class. The score assigned to a reasons set, ranging from 0 to 50 points, will be dependent upon these factors (in approximately this order of importance).

- A. Accuracy;
- B. Organization of thoughts, completeness, and conciseness; and
- C. Manner of presentation (articulation, mannerisms, appearance).

\*These students are expected to dress neatly. T-shirts, faded jeans, shorts and hats should be discouraged. FFA members are not expected to be professional speakers in order to score well, and no specific “style” of giving reasons will be preferred unless it contributes to accuracy, organization, and mannerisms. However, an organized format is often helpful to a FFA member in giving reasons.

Each oral reasons class will have two cards to be filled out – one placing card and one reasons card that the student will hold and turn in when they give their presentations. They may use their reasons card to reference their placing if no other notes are made on the card.

#### REFERENCES

1. Videos available in 3/4” or 1/2” format from ISU Media Resources include:
  - (a) Lamb Evaluation/Ewe Evaluation (75019)
  - (b) Beef Cattle Judging (75216)
  - (c) Swine Judging (75340)
2. For help with the market swine evaluation class, and Relative Lean Pork Value, write for “The Pork Value Approach...Paying for Value,” Nat’l Pork Producers Council, P.O. Box 10383, Des Moines, IA 50306 (or call (515) 223-2600).

3. For “Using Performance Data in Beef Judging Classes,” ask your county extension office for BIF Fact Sheet FS5 (As-563, from ISU).
4. The maternal index is discussed in the National Swine Improvement Federation Guidelines. Write the National Pork Producers Council (see #1 above).
5. For additional questions and/or instructional materials on the classes, write Dr. Brad Skaar, 109 Kildee, Iowa State University, Ames, IA 50111 (or call (515) 294-2240).
6. The National FFA Career Development Events – 2001-2005 (National FFA Organization rules) will apply in general way to this state event.

### **SCORING AND RANKING OF TEAMS AND PARTICIPANTS**

1. Each of the 12 event classes will have a value of 50 points, for a total of 600 points.
2. To determine the individual and team winners, the participants will be ranked on the basis of the total score for:

<b><u>Phases</u></b>	<b><u>Scoring</u></b>
Breeding Classes (3 classes worth 50 points).....	150 points
Market Classes ( 3 classes worth 50 points).....	150 points
Evaluation Classes (3 classes worth 50 points).....	150 points
Oral Reasons (3 classes worth 50 points).....	150 points
<b><u>Total Individual Points Possible</u></b> .....	<b><u>600 points</u></b>
<b><u>Total Team Points (3 participants)</u></b> .....	<b><u>1800 points</u></b>

3. Only the top three team members’ scores will count for overall team score. The top three scores will count for recognition in each division or category regardless of the individual team members’ rankings in the overall team score computation. All team members are eligible for individual awards.
4. Overall team and individual tie scores will be broken: (a) first by the total score on oral reasons; (b) second by the greatest number of “50” scores in all classes; and (c) third by the total score in breeding and market classes. Ties in species and oral reasons classes will be broken by overall team/individual scores.
5. Teams will be ranked into groups designated “Gold Emblem,” “Silver Emblem,” and “Bronze Emblem.” Teams which do not have three members will be listed as “Participants.” Teams which violate any rule will also receive a “Participation” rating.
6. The team winner on all classes combined will be designated the “Iowa Champion FFA Livestock Team” and will represent Iowa in the National FFA Livestock Career Development Event at Louisville the following October.
7. The second place team will be certified to participate in the Junior National Western Livestock Judging Career Development Event at Denver. A cash award will be provided for this team to participate.

### **AWARDS**

Awards listed below are at the discretion of the sponsor and pending availability of sponsorship. It is vitally important that participants write thank you letters to sponsors in order to retain their support. A thank you list naming current sponsors will be provided to each participating chapter at the event site.

Award sponsored through the National FFA Foundation:

Champion Team..... Plaque

Awards sponsored through the Iowa FFA Foundation:

Champion Team .....	Cash award for travel to the National FFA Livestock CDE
Reserve Champion Team.....	Plaque and Cash award to participate in the National Western Contest
Top 10 Teams .....	Rosettes
Members of Top 10 Teams.....	Rosettes
Top 10 Individuals.....	Rosettes
1 <sup>st</sup> and 2 <sup>nd</sup> Place Individuals.....	Trophies
Top Team and Top Individual .....	Trophies
a. Beef	
b. Sheep	
c. Swine	
d. Oral Reasons	

The Iowa FFA Association will award certificates to all Livestock teams and participants.

**CARDS USED FOR LIVESTOCK JUDGING**

**Iowa FFA Oral Reasons Card**

Class \_\_\_\_\_

Class Placing \_\_\_\_\_

Contestant Name \_\_\_\_\_

Contestant No. \_\_\_\_\_

School (Town) \_\_\_\_\_

Oral Reasons Score \_\_\_\_\_

*NOTE:  
Reasons card may  
differ from example  
shown or may not be  
used at all due to the  
use of electronic  
scoring.*



**Market Lamb Evaluation**  
**Iowa FFA Livestock Judging Career Development Event**

Participant: \_\_\_\_\_ Participant Number: \_\_\_\_\_

Chapter: \_\_\_\_\_

Directions: For each of the following traits, place an “x” in the box that indicates your estimate of that trait for each of five lambs.

<b>Estimate Fat Depth, inches (Yield Grade)</b>											
ID	0.00 (0.04)	0.05 (0.09)	0.10 (1.40)	0.15 (1.90)	0.20 (2.40)	0.25 (2.90)	0.30 (3.40)	0.35 (3.90)	0.40 (4.40)	0.45 (4.90)	Score
1											
2											
3											
4											
5											
<b>Estimate Rib Eye Area (sq. in.)</b>											
ID	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.6	2.4	2.2	Score
1											
2											
3											
4											
5											
<u>Scoring</u>											<b>Total Score</b>
Yield Grade:	5 points for correct answer, 3 points for adjoining box, 1 point for answer two placing off.										
Rib Eye Area:	5 points for correct answer, 3 points for adjoining box, 1 point for answer two placing off.										
Total:	10 points per lamb. 50 points total per class										

### Lean Pork Value Evaluation Worksheet

(This is an EXAMPLE of the worksheet that will be provided; an updated version may be used.)

**Part A:** Worksheet for recording needed carcass estimates.

<b>Part A: Worksheet for Recording Needed Carcass Estimates</b>					
Muscle Score	Relative Lean* Pork Value		Hog No.	Live Wt.	10 <sup>th</sup> Rib Fat
			1		
			2		
			3		
			4		

\*See Lean Guide to Park Value

<b>Part B: Lean Guide to Pork Value</b> (Based on a Percentage of Base Market Price Where 100= Average Market Value Ratio)									
10 <sup>th</sup> Rib Fat Thickness (In.)									
Live Wt. Lb.	.6	.7	.8	.9	1.0	1.1	1.2	1.3	1.4
<b>190-199</b>	92	91	90	89	88	87	86	85	84
<b>200-209</b>	97	96	95	94	93	92	91	90	89
<b>210-219</b>	102	101	100	99	98	97	96	95	94
<b>220-230</b>	104	103	102	102	100	99	98	97	96
<b>231-240</b>	104	103	102	101	100	99	98	97	96
<b>241-250</b>	103	102	101	100	99	98	97	96	95
<b>251-260</b>	102	101	100	99	98	97	96	95	94
<b>261-270</b>	100	99	98	97	96	95	94	93	92
<b>271-280</b>	99	98	97	96	95	94	93	92	91
<b>281-290</b>	98	97	96	95	94	93	92	91	90
<b>291-300</b>	95	94	93	92	91	90	89	88	87

**To determine final value, adjust for muscle thickness:  
Thick muscling = +1.5% and Thin muscling = 1.5%**

**Please note: Scoring**

The class will be worth 50 points and scoring will be conventional. However, assignment of cuts will be more objective.

The official placing will be determined from the official committee's estimates of RLPV. And the cuts will be derived from the degree of difference in RLPV between two hogs in a given pair (see chart below). If two hogs have identical RLPVs, the officials may use visual appraisal to place the pair, and a one point cut is assigned.

Lean Pork Value continued

<b>Difference in RLPV between the two in the pair</b>	<b>Assigned Cut Value</b>
0 and .5	1 point
1.0 and 1.5	3 points
> 1.5	5 points

<b>EXAMPLE CLASS</b>				
<b>Hog No.</b>	<b>Live Wt.</b>	<b>10<sup>th</sup> Rib Fat</b>	<b>Muscle Score</b>	<b>Relative Lean* Pork Value</b>
1	220	.7	Average	103.0
2	250	.8	Thick	102.5
3	250	1.1	Average	98.0
4	230	.9	Thin	100.5
Office Rank = 1 – 2 – 4 – 3			Cuts = 3 – 5 – 5	