

Introduction

This manual is designed to give students as well as teachers a guideline to follow in preparing for contests. Although this manual is a reflection of the author's opinions and personal preferences, the majority of material presented here is based upon popular opinion and trends of the time. This manual will no doubt become outdated which hopefully means we have progressed and become better. It is important to stay abreast of current trends and styles in order to stay competitive.

The value of livestock judging contests lies in the education of youth. In essence it teaches young people to make logical decisions based upon what they see, and thru reasons, to defend their respective decisions. It teaches prospective producers some of the criteria upon which management decisions could be made. It also gives young people the opportunity to travel to places they would otherwise never go and to meet people that they would have otherwise never met; some of which will become lifelong friends.

Basics

Dress for a contest:

A contestant should look presentable. Some FFA contests may require that official dress be worn. Some national or even state contests may warrant dress pants, ties, and blazers. For the majority of contests a nice pair of pants or jeans with a button up or a polo type shirt would be acceptable. Hats should not be worn, in particular during reasons.

Format of a contest:

A typical contest may consist of placing classes, oral reasons classes, questions classes, keep/cull classes, and grading classes. Placing classes consist of four animals and are to be ranked from best to worst. Usually a contestant is allowed 12-15 minutes for placing and keep/cull classes. A placing class consists of three pairs; a top, middle

and bottom. Officials put the official placing on the class along with 'cuts'. There is a cut for each pair. The cut represents the number of points a contestant will lose for placing a pair incorrectly. Cuts generally range from 2 to 6 (they can be as low as one or higher than 6), with a cut of two representing a difficult pair to place and a 6 representing an easy pair to place. A perfect score is worth 50 points. If a contestant switches a pair, official is 1-2-3-4 and contestant places it 2-1-3-4, and the cuts are 2-4-6 then the contestants score is a 48. Following are possible pair switches using the same official and cuts as above: 1-3-2-4 score is a 46, 1-2-4-3 score is a 44, 2-1-4-3 score is a 42 (double pair switch). Anything other than a pair switch is referred to as a 'bust'. Busts are more difficult to score. Following is the general way in which busts can be scored: If the official is 1-2-3-4 with cuts of 3-5-3 and the contestant's placing is 3-4-1-2 then ask do I have one over two? Yes so no points are lost. Do I have 1 over 3? No so you lose the sum of the top and middle cuts which is 8 in this case. Do I have 1 over 4? No, so you lose the sum of all three cuts which is 11. Do you have 2 over 3? No so you lose the middle cut of 5. Do you have 2 over 4? No so you lose the sum of the middle and bottom cuts which is 8. Do you have 3 over 4? Yes so no points are lost. Your final score for this class will be equal to 50 minus your 'drop' (number of points lost). Your drop is $8 + 11 + 5 + 8$ which is 32. So your score is an 18.

Reasons classes are also worth 50 points, but are scored subjectively by an official reasons taker. Reasons are a brief, organized speech outlining why a contestant placed a class the way they did. They are given on placing classes only. Reasons generally last between one and two minutes. Reasons are scored based on accuracy and presentation. Reasons should be given without the use of notes. Generally a poor set of reasons is scored below a 30, and average set is between 30 and 40, a good set is between 40 and 45, and excellent sets are above 45. Very rarely is a set scored a 50 or below a 20.

Questions classes are worth 50 points as well. Often times they will replace a reasons class for younger contestants. A questions class consists of 10 questions over one of the placing classes or possibly one of the keep/cull classes. Each question may either be worth 5 points each or 3 points each. In the later case a minimum score of 20 would be given to each contestant. The type of material covered in a set of questions may contain but is not limited to identification type questions (color, sex, breed),

questions regarding the quality of the animals (who was the heaviest muscled, between 2 and 3 who was nicer balanced, etc.), or questions over performance information if provided (who had the lowest birth weight, who was born a twin, who offers the most direct growth to his offspring, etc.).

Keep/Cull classes contain eight animals generally breeding animals either females or intact males (bulls, boars, or rams). The contestant is asked to mark which four animals they would like to keep in any order. All eight animals are assigned a point value by officials with the four best animal's point values summing to 50. Often times performance information such as EPDs will be given as an aid in determining which four to keep. Performance information will be discussed in detail later.

Note taking:

Taking notes during a placing class is a critical component to correct placing, good reasons, and correctly answering questions. Good notes will help a contestant logically think thru a class to place it, and then to help them remember the class while they prepare to give oral reasons or to answer questions. There are several methods of note taking, but the following is what I recommend. Use a steno pad of dimensions 6x9. Write down key identifications of animals such as color or sex as well as large placing criteria to help you remember the class. Notes should not be used while answering questions and it is highly discouraged to use them during reasons.

Generalization of terms and major placing criteria:

Below are the major placing criteria for livestock of any species. Single trait selection, or complete emphasis in only one area, should be avoided. Looking for animals that are able to combine the below mentioned areas without major deficiencies in any area would be ideal.

Composition: The muscle and fat content of an animal. Desirable composition would include an animal that is heavy muscled with an optimum degree of finish or fat. The optimum value changes over time. For instance, there was a time when lard (fat from swine) and tallow (fat from beef animals) were economically important. Contrast this to now when swine are marketed on grid based systems that reward leanness. This extreme leanness phase in swine is perhaps changing to a more moderate approach with an acceptable window of fat cover where no one extreme is desirable. Averages and ranges of muscle and fat measures can be found under the Carcass Parameters section.

Structural Correctness or Soundness: Structural correctness is generally thought of as an animal's ability to move without difficulty due to incorrect feet and leg structure.

Emphasis is generally put more on structural correctness when evaluating breeding animals than market animals, but market animals should not be incorrect in this area either. The ideal animal should move in such a way that their back feet hit the ground in the same spot that their front feet left. This would indicate that they are correct in their length of stride, suggesting that they are structurally sound.

Femininity: This term would apply to breeding females only (heifers, ewes, and gilts). It encompasses several individual traits. Perhaps most obvious is cleanliness and thinness of the neck and smoothness of the shoulders. A feminine and refined looking head is also important. It is important to note that a clean neck does not necessarily mean that a female is feminine. Ideally one should have a relatively long and thin neck. The shape of the neck, or lack of a cresty neck, is more important. Clean and refined bone work is also important. While it is important for a female to have adequate substance of bone, she need not be course jointed. For swine, femininity is defines more by refinement of the head and underline and the muscle pattern (not extremely raw or round in their muscle pattern). More critical, however, are the fundamentals of a female such as udder and teat development or underlines in gilts and the shape and size of a female's vulva (none too small such that natural breeding could not occur or an undesirable shape such as a tipped vulva; one that points upwards). Although these before mentioned traits are sometimes excluded in placing criteria, they most certainly belong in a good, descriptive

set of reasons and in a true production setting are the most critical of all selection criteria along with structural correctness. Adequate rib dimension is also important and should be grouped with femininity as a whole.

Balance: Balance is often times synonymous with eye appeal. It encompasses many traits and is generally thought of as how an animal blends different regions of its body together. Correctness of lines, levelness and proportionality are all components of balance. For instance, an animal with a weak top, short hip, or ewe neck (dip in the neck shoulder junction) could be described as being poor balanced.

Performance and Growth: This would refer to an animals frame size and apparent weight. This again should fall within an acceptable window. Although performance is important, quality is more important (a combination of all traits). Frame size can also become a disadvantage. For instance an exceptionally large framed animal may not be desirable, especially if she is deficient of muscle and rib. On the other hand an exceptionally small animal may be called early maturing or 'quick'. Ideally an animal's size should be evaluated with consideration given to their age, although this information is not always available. Both extremes can be seen if one looks at the past. In the 1950's smaller framed animals were more desirable, in part because the lack of growth promoted excess fat which was more desirable at the time. Contrast this to the 1980's and early 1990's when larger framed animals were more desirable. Today we find ourselves somewhere in the middle.

Breed Character: This refers to an animal conforming to a set of breed standards in terms of appearance. It is not a critical placing point for a judging contest but is note worthy for reasons. It most generally applies to breeding sheep classes. Detailed breed pictures and standards can be found at the following website for all species and breeds: www.okstate.edu. And for sheep in particular go to www.nsip.org.

Performance Information: This refers to actual information given to the contestant such as birth dates, actual weights, actual ultrasound measures, ratios, indexes, and EPDs

(expected progeny differences). Generally this is only given on breeding classes and is followed by a scenario. A scenario outlines specific goals and or concerns of an imaginary producer who owns the four animals. These goals and or concerns allow the contestant to know what information is important in placing the animals. Performance information is meant to give the contestants limited experience using EPDs and other performance information. It is also meant to be an aid in placing the animals. Never should one place sole emphasis on the data, only look for outliers or use it to sort close pairs.

Reasons

General reasons format and presentation

The most widely accepted format for reasons is called the grant/criticize format. There are three 'pairs' of animals, a top, middle, and bottom. Within each pair an animal is described and the animal that follows it is granted certain strengths and is then criticized. Below is a very general format, more descriptive sets of reasons for particular species will be given later.

The contestant should stand, men with their hands behind their back, ladies with either their hands behind their back or in front; never at their side. At any level of competition, I would encourage students to write out reasons during practice so that they can see if correct grammar is used and notice any words that are over used. During a contest I would discourage writing out reasons and would suggest that detailed notes be used to remember the animals. Also, video taping of reasons is an invaluable tool so students can see and hear any mistakes that they make that otherwise they would be unaware of. Video taping over a series of time also helps them see the progress that they have made.

The following format should be used:

Talk about positive things concerning your first place animal. These should compare the first place animal to either the second place animal or the class as a whole. When comparing to the animal placed below, phrases ending in 'er' should be used (longer, heavier, etc.). When comparing the entire class, terms ending in 'est' should be used (longest, heaviest, etc.).

Then grant something good about the second place animal over the first place animal, again using either 'er' or 'est' terms. This should be relatively short and should be things that the second place animal has that are better than the first place animal.

Then criticize the second place animal. These should be the faults of the second place animal. Here point out faults without 'er' terms, either use 'est' if applicable or just point out faults without comparison (short, light, narrow, etc.).

This same format should be used in all three pairs with transitions (to be described later) connecting the three pairs.

Phrases and terms not to be used in reasons:

A set of reasons should be formal and professional. Certain phrases and terms should be avoided to achieve this. Phrases and terms should always be descriptive and generally conform to proper English. Profanity should not be used. The contestant should avoid using any hand gestures to describe the livestock. The contestant should only use terminology that they understand and is able to use correctly. To start with simple terms and phrases is best until one feels more comfortable and are able to move on to more descriptive terminology. In general a contestant should start a set of reasons with the placing or something similar but should never start with information about the contestant such as age, school name or the contestant's name. Further more, it is not necessary to end a set of reasons with the phrase "for these reasons I placed the class...." It is not necessary to mention your placing again at the conclusion of your set of reasons. The set of reasons should be concluded when you are finished describing the last place

animal and should end with “of the class” or something similar such as “of the drive” when talking hogs. Unnecessary words should be avoided as well. For instance, there is no reason to say “the number three steer is” Instead say “Three is...”, or use an ID like “The baldy steer is...” Instead of saying heifer or ewe or gilt over and over again, female can be substituted when talking breeding classes. The same holds true for using sire instead of bull, ram, or boar. Overuse of the word ‘the’ often leads to excess words. For example: ‘He is also the heavier muscled, wider based steer who is sounder moving’. Now take out the word ‘the’ from the last description and it makes it simpler; ‘He is also heavier muscled, wider based and is sounder moving’. By taking out the word ‘the’ I was also able to take out the word ‘steer’ which in a set of reasons will often be repeated to the point of excess. This is only a partial list, but should encompass the general idea.

-I criticize her for being.... (Instead say I criticize her as she is...)

-She/he looked sick

-She didn’t look like she could carry a calf

-She/he didn’t look good or looked bad

-She/he was better than another one

-She/he lacked the overall (muscle, balance, etc.) of another one

-She/he was the worst

-She/he should yield more (steaks, sirloin, any retail cuts)

-She/he should yield more pounds of meat

-Individual (say steer, lamb, barrow, etc.)

-Cow (they are generally heifers, steers, or bulls)

-Any comments regarding disposition (she/he was calm or wild)

-Kind of (Example: He was kind of light muscled)

-Finding no obvious grants (It would be very rare that this would occur, there is usually something to grant. If this does occur I would suggest the following: Yes three is also long bodied (or any positive attribute the animal has) but I faulted him/her and placed him/her ...)

-I placed him/her last (Instead say fourth, last is harsh and you might be talking to the owner. Last should only be used to emphasize what is an extremely easy placing of an extremely poor quality animal).

-Use specie specific terminology. For example when talking sheep don't say quarter or ham, say leg.

Transition Terms

Transitions terms are used to move into a grant or criticism or to move from one pair to another or within a pair to tie phrases together. Changing transition terms and phrases makes a set of reasons more pleasing to listen to and often makes a set of reasons unique.

-I grant

-Yes,

-Indeed

-I admit

-I concede

-I realize

-Now,

-In a (middle or bottom) pair that contrasts in type, I prefer...

-On the other hand

-In addition to

-Furthermore

-Moreover

-To add to this

-Additionally

-Uniquely he/she is also

-Yet, in the middle pair (or bottom pair)....

-However, his/her problems deal with....

-However, I'm critical of his/her.....

Cattle

Breeding Heifers:

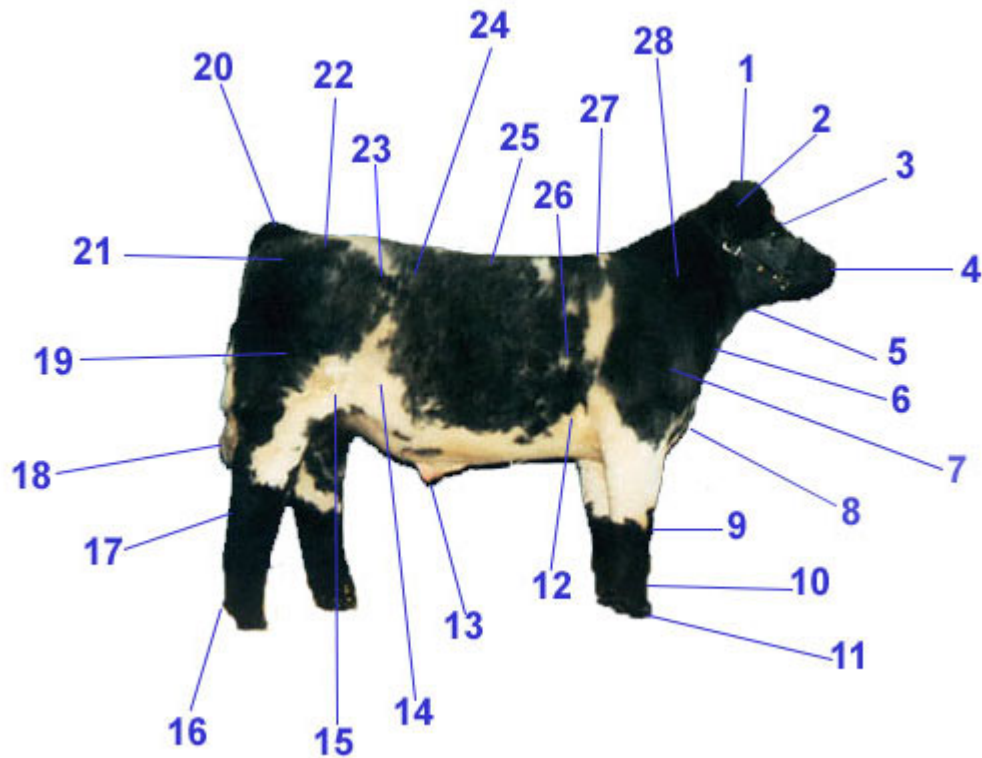
When placing breeding heifers emphasis should be placed on structural correctness, femininity, substance (rib and muscle), and performance. View females from the side to determine balance and femininity. Watching them walk will help evaluate structure. Females must only be adequate in terms of muscle and this is the least important of the before mentioned placing criteria for heifers. Adequate width of chest translates into spring of rib and females should have both rib expanse and depth. Frame size should be moderate as too small may translate into poor performance and too large may indicate those that are 'hard doing' or 'hard keeping' meaning that they may not flesh well.

Market Steers:

The ideal market steer is moderate in terms of both frame size and weight. He should weigh between 1,200 and 1,300 pounds. Never should he weigh below 1,000 or over 1,500 pounds. He should have adequate finish of around .3 inches but not too much as to indicate one that is wasteful (possible high yield grade) and not too little as to indicate one that was hard feeding. He should be thick topped and wide based. He should also be pleasing from the profile and sound moving. In some contests the contestants will be allowed to handle the steers to determine fat cover and muscle over the loin and behind the shoulders.

Bulls:

Bulls should be sound, heavy muscled, and correct in the size and carriage of their testicles. They should be masculine in appearance and show adequate performance for their age. They should be rugged, heavy boned and big bodied.



1. Poll	2. Ear	3. Face
4. Muzzle	5. Throat	6. Dewlap
7. Point of Shoulder	8. Brisket	9. Knee
10. Pastern	11. Hoof	12. Heart Girth
13. Sheath	14. Belly or middle	15. Rear Flank
16. Dew Claw	17. Hock	18. Switch
19. Quarter or round	20. Tail Head	21. Pins
22. Rump	23. Hooks	24. Loin
25. Back	26. Ribs	27. Crops
28. Neck		

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Example Animals



Pictured above is a Hereford steer. His visual fat indicators (flank, brisket, middle, and around the tail head) all seem to indicate he is acceptable in his degree of finish. He also appears to be functionally sound, although the set to his hind leg would indicate he is sickle hocked. His hind leg creates a balance problem, but more importantly he appears to be light muscled as evidenced by the lack of shape to his quarter, in particular his stifle. This would be an example of a steer without sufficient muscle to be in the top pair.

Cattle Terms

Structure:

- | | |
|---|-----------------------------------|
| -Sounder off of both ends | -Straight off of both ends |
| -More correct angle to his shoulder | -Straight in his shoulder |
| -Longer more accurate stride | -Short strided |
| -More flex and give to his hock and pastern | -Straight in his hock and pastern |
| - Takes a longer stride off of both ends | |
| -Stood squarer from behind | -Cow-hocked |

Muscle:

- | | |
|----------------------------------|--|
| -Bigger topped and thicker ended | -Narrow topped and flat thru his quarter |
| -More powerful from behind | |
| -More impressive from behind | |

- More powerful behind his shoulder
- Thicker hip and more expressive quarter
- More width to pins and deeper quarter
- Thicker out of his hip and descends this deeper onto his stifle
- Wider based or gauged
- More volume of muscle
- Narrows out of his hip
- Narrow based or gauged

Overall Appearance:

- More eye appealing
- Simply more of him/her
- The most complete, tying together a better combination of

Phrases not to use:

- Casts a larger shadow (This was used decades ago when being extremely large framed was considered good)
- Larger framed (This isn't always a good thing, use with caution.)
- Bigger outlined (This isn't always a good thing, use with caution)
- More pounds of product (There are more descriptive terms to use)

Breeding Cattle Specific Terms

Femininity and balance:

- Cleaner jointed or flatter boned
- More refined about her head and neck
- Longer, thinner neck
- Cleaner patterned/conditioned
- Lays her tail head in more correctly at the end of her spine
- Course jointed
- Short, thick neck
- Heavy conditioned
- Course about her tail head

- Longer, leveler top
- Straighter in his lines
- Lays in smoother at his shoulders
- Neater dewlap

- Short, weak top
- Course at the point of his shoulders
- Leathery fronted

Body dimension:

- Deeper sided/bodied/ribbed
- Bolder sprung
- bigger bodied
- broodier appearing
- Appears to be easier fleshing
- strikes me with more of a brood cow look
- more brood cow potential
- spreads more volume of muscle down her top
- More uniform in her body depth

- Shallow sided/bodied/ribbed
- Flat ribbed/narrow chested
- Appears to be hard keeping
- Pinched in her heart or shallow in her flank

Masculinity:

- More testicular development
- His testicles descend more correctly from his body
- more correct in his testicular carriage
- Small testicles
- Twisted scrotum

Market Steer Specific Terms

Finish:

- Cleaner thru his chest and middle
- Deeper in his flank
- Fuller in his fat indicators

- Deep chested, heavy middled
- Shallow flanked

- Handles more uniform in his cover
- Handles with more finish over his fore and rear rib

- Handles patchy in his cover
- Harsh handling, or bare

Body dimension:

- Deeper sided/bodied/ribbed
- Bolder sprung
- bigger bodied
- More uniform in his body depth

- Shallow sided/bodied/ribbed
- Flat ribbed/narrow chested
- Pinched in his heart or shallow in his flank

Balance:

- Lays his tail head in more correctly at the end of her spine
- Longer, leveler top
- Straighter in his lines
- Lays in smoother at his shoulders

- Course about his tail head
- Short, weak top
- Course at the point of his shoulders

Carcass:

- He is heavier muscled and should open up with a larger ribeye area
- His leanness should give him a yield grade advantage
- He is the heavier muscled, leaner steer who should have a higher cutability carcass
- He is the bigger topped thicker ended steer who should rib with a larger eye
- He is cleaner through his chest and lower shoulder, but still adequate in terms of finish.

Thus I would expect him to have a more desirable combination of quality and yield grade.

- He should open up a larger ribeye, exposing a higher degree of marbling.
- He is the cleaner patterned steer that handles leaner over his ribs and loin edge and thus should kill with a yield grade/cutability (if heavy muscled too) advantage.
- He is the more moderately framed steer who meets my hand with a greater turn to his loin edge and thus should kill with more ribeye relative to his carcass weight.

- He is the more moderately framed steer that is easily bigger topped and thicker ended and still comparable in terms of leanness. Thus his smaller, more muscular carcass should create a yield grade advantage.
- He is the most complete steer as he not only excels on the hoof, but he should also prove to be the best (or most valuable) in the cooler.
- Yes, he appears to have been the easiest feeding, but today this works to his disadvantage, as he is the most excessive in his cover and should have the least desirable yield grade of the class.
- Yes he should have the lowest yield grade, but this goes with his kind. He is also the tightest ribbed and appears to have been the hardest feeding.
- He is closer to optimum in his degree of finish and this coupled with his Angus influence suggests he is safer into a higher quality grade (or the choice grade).
- He is the more product oriented steer who is bigger topped and wider based.

Performance Cattle

Several different EPDs may be given with a number of possible scenarios. Scenarios can range from the extremely simple to the very complex. It is important to be able to pick out only the pertinent parts of the scenario which will play a role in how the class is placed. Outlined below are some of the current EPDs and their definitions. It should be noted that some breeds may have slightly different names for the same EPD. EPDs should always be compared to breed average, which will generally be given. Most certainly new ones will be added in the future. Following will be sample scenarios with sample performance terms and phrases and sample reasons.

Trait	Desired Direction	Description
CE	High	Direct calving ease. Measured as a percentage of unassisted births. A measure of how easily a sire's calves will be born.

BW	Low	Birth weight. Measured in pounds of calf.
WW	High	Weaning weight. Measured in pounds of calf.
YW	High	Yearling weight. Measured in pounds of calf.
SC	High	Scrotal circumference. Measured in centimeters.
M	Intermediate	Milk. Measured in pounds of calf weaned due to the cows milking ability.
TM or Milk and Growth	High	Total maternal. Measured in pounds of calf. Is equal to milk plus half WW.
CED or MCE	High	Calving ease daughters or maternal calving ease. Measured as a percentage of unassisted births. A measure of how easily a sire's daughter's calves will be born.
CWT	Intermediate	Carcass weight. Measured in pounds of hot carcass.
REA	High	Ribeye area. Measured in square inches.
FT	Intermediate	External fat thickness. Measured in inches.
IMF	High	Percentage of intramuscular fat. Measure of quality grade.
\$G	High	A grid value index.
\$F	High	A feedlot value index
\$B	High	A beef value index

Performance Cattle Terms

-Her kind, coupled with her maternal genetics suggests she should be the more valuable replacement.

- If she holds true to her growth genetics, her sons should experience more feedlot gain.
- He is the more expressively muscled bull that is cleaner patterned and if he should breed true to this; I would expect his market bound offspring to kill with a yield grade advantage.
- He should prove to be the sounder breeding bull of the pair as he takes a longer more athletic stride out of both ends on more bone and a bigger foot while being more correct in his testicular carriage.
- Her unique blend of maternal and terminal strengths suggests she offers more profit potential to this purebred operation.
- Her maternal milk column suggests she should wean more pounds of calf due to added milk flow.
- Her combined maternal genetics suggest she should wean more total pounds of calf.
- If he holds true to his easier keeping look and his progeny difference for marbling, then his feedlot offspring should be more efficient and in the end be worth more on a quality grid.
- He is the potential caving ease sire of the class (Lowest BW EPD or Highest Direct Calving Ease EPD).
- He is the more maternally oriented sire who has more testicular development and thus his daughters should reach first estrus (or puberty) earlier.
- She is the highest quality female who could be more valuable to this operation as a marketing tool if exhibited at national events.
- If she holds true to her marbling genetics, I would expect her sons to be more merchandisable to producers who market on a quality grid.
- His birth weight progeny difference gives the operation more breeding flexibility as he could be mated to either cows or heifers.
- Her kind, coupled with her maternal genetics suggests her daughters will be more successful in the show ring and the pasture.
- She offers the most growth/maternal/carcass genetics.

Sample performance data, scenarios and reasons

Performance Angus Bulls

Bull	BW	WW	YW	M
1	2.0	37	69	17
2	5.8	40	85	14
3	2.4	40	75	19
4	2.8	42	80	19
BA	2.6	36	67	18

(Breed Average)

Rank these bulls as they will be used in a commercial operation on Hereford heifers for the production of black baldy replacement females. All culls are sold at yearling.

Based off of the data alone, one could logically come to the placing of 4-3-1-2. Obviously the traits of BW, YW, and M are important because these bulls are being bred to heifers (low BW needed), replacements are being kept (Adequate M), and culls are being sold at yearling (High YW, but can't sacrifice BW because being mated to heifers).

Sample Performance Angus Bulls Reasons

4-3-1-2 is my placing of the Performance Angus Bulls. The branded bull is simply bigger topped and thicker ended. He also steps down on the larger bone and foot and if he holds true to his growth genetics his calves should experience more feedlot gain. Yes, 3 is longer and cleaner patterned, but he also tapers out of his upper hip and flattens into the base of his quarter.

In the middle pair it is 3 over 1. He is the wider based, bolder ribbed bull who has more dimension to his quarter. Furthermore he is easily the most attractive from the profile, especially being the longest and levellest in his top line. Finally, he offers more direct growth to his market bound progeny. I realize 1 has the lowest birth weight progeny difference and is easily the soundest, but he goes third. Not only is he the lightest muscled and frailest, but he is also the least growth oriented bull of the class.

However, he still needs to beat 2 in the bottom pair. He is the calving ease sire of the class that is more correct in the angle to his shoulder and moves with more flex and give to his hock and pastern. Additionally, his daughters should prove to be heavier milking. There is no doubt that 2 is the most growth oriented and is heavier muscled, but I placed him fourth. He is not only the highest in his birth weight EPD, but he is the most structurally incorrect, and the tightest ribbed bull of the class.

Below is the same basic class as above, but with more EPDs listed and a more detailed scenario.

Performance Angus Bulls

Bull	DOB	BW	WW	YW	M	SC	REA	FT	%IMF	%RP
1	4/10/04	2.0	37	69	17	.24	.11	.004	.06	.03
2	3/01/04	5.8	40	85	14	.29	.20	.000	-.02	.06
3	4/01/04	2.4	40	75	19	.26	.15	.003	.07	.04
4	4/02/04	2.8	42	80	19	.27	.15	.004	.10	.05
BA		2.6	36	67	18	.25	.11	.003	.06	.04

(Breed Average)

Rank these bulls as they will be used on Hereford heifers for the production of F1 replacements. Ownership is retained on all culls and they are marketed towards CAB (Certified Angus Beef) premiums.

The placing of this class would remain the same as above based off of the data alone. Now, %IMF (high marbling to make CAB quality grade requirements) becomes important in addition to BW, YW, and M. In this example REA, FT, and % IMF are all ultrasound measures. If they were carcass measures, they would be interpreted the same way and the only difference would be that %IMF would be called MB (marbling).

Sample Performance Angus Bull Reasons

4-3-1-2 is my preferred alignment of the Performance Angus Bulls. In the initial pair of bulls who are more balanced in their genetic profiles I preferred the more growth oriented and heavier muscled 4 over 3. The branded bull is simply bigger topped and thicker ended. He also steps down on the larger bone and foot and if he holds true to his growth genetics his calves should experience more feedlot gain. Yes, 3 is longer and cleaner patterned, but he also tapers out of his upper hip and flattens into the base of his quarter.

Even so, he still maintains a muscle advantage over 1 in the middle pair. In particular he is wider based, bolder ribbed and has more dimension to his quarter. Furthermore he is easily the most attractive from the profile, especially being the longest and levellest in his top line. Finally, he is superior in his growth genetics and thus offers more direct growth to his market bound progeny. I realize 1 is the potential calving ease sire of the class who is easily the soundest, but he goes third. Not only is he the lightest muscled and frailest, but he is also the least growth oriented bull of the class.

However, he still needs to beat 2 in the bottom pair. He should prove to be the sounder breeding bull who offers more breeding versatility to the herd. He is the calving ease sire of the class that is more correct in the angle to his shoulder and moves with more flex and give to his hock and pastern while being more correct in his testicular carriage. Additionally, he offers more profit potential to the herd as his daughters should prove to be heavier milking, while his culls generate more CAB premiums. There is no doubt that 2 is the most growth oriented and is heavier muscled, but he lacks the fundamentals of a herd sire. The twisted scrotum bull is not only on the wrong side of breed average for birth weight and marbling but he is the most structurally incorrect, and the tightest ribbed bull of the class.

Sample Market Steer Reasons

1-2-3-4 is my placing of the market steers. I started the class with 1 as he is easily the biggest ribbed and is more moderate in his frame size. He looks to be fuller in his fat

indicators, and I would expect him to hang a carcass with a higher quality grade. Two is heavier muscled form behind. However, he is straight shouldered.

In the middle pair I like 2 over 3. He is simply the bigger topped, thicker ended steer who should rib with a larger eye. To add to this he is more attractive from the side. The Hereford appearing steer is the soundest structured, but he is also the narrowest.

However, I still prefer him over 4 in the bottom pair. He is the bigger bodied steer who is more correct in his degree of finish. He is also sounder. There is no doubt that 4 is heavier muscled, but I placed him fourth. He is the most structurally incorrect steer of the class.

Sample Market Steer Reasons

1-2-3-4 is my preferred alignment of the market steers. In the initial pair of stouter baldy steers I personally like the easy feeding look found in 1 over 2. He is easily the biggest ribbed and is more moderate in his frame size. From the outside he looks to be fuller in his fat indicators, and as I step to handle him he is certainly more uniform his cover. Finally, I would expect him to hit the cooler with a quality grade advantage. The more powerful steer is easily 2, particularly from behind. However, he becomes somewhat patchy in his finish as well as straight in his shoulder.

Yet he still easily beats 3 in the middle pair. He is simply the bigger topped, thicker ended steer who should rib with a larger eye. To add to this he is more attractive from the profile as he is straighter in his lines and cleaner through his chest and lower shoulder. The Hereford appearing steer is the soundest out of both ends of his skeleton, but he is also the narrowest. He tapers out of his hip and is the flattest through his stifle.

However, I still prefer his kind over 4 in the bottom pair. He simply has the look of a more practical fat steer. He is the more sensible in terms of frame and is deeper bodied. Along with this he is softer in his look and handles with more cover along his ribs. He also moves with more flex and give to his hock, allowing him more reach as he travels. There is no doubt that 4 is heavier muscled and is the highest cutability, but he is wrong in his kind. Not only is he the most extreme in terms of frame size, but he is also the harshest handling, and the straightest off of both ends of any in the class.

Sample Angus Heifer Reasons

1-2-3-4 is my placing of the Angus Heifers. One wins, as she is the broodiest female of the class. She is the biggest bodied, heaviest muscled and the soundest traveling female who stands on the biggest bone and foot. Two is more attractive through her front end and is longer patterned, but she goes second. She is also pinched in her fore rib and tapers out of her upper hip.

Two places over 3 in the middle pair because she is the sounder structured heifer that is cleaner patterned. Three is heavier muscled, but she is the heaviest conditioned and the coarsest made.

In the bottom pair 3 places over 4. She is the bolder sprung, deeper bodied female who appears to be easier fleshing and is heavier muscled. Four is longer and cleaner patterned, but she is straight in her shoulder and is the flattest made, lightest muscled female of the class.

Sample Angus Heifer Reasons

1-2-3-4 is my placing of the Angus Heifers. One easily wins, as she is the broodiest female of the class. She is the biggest bodied, heaviest muscled and the soundest traveling female who stands on the biggest bone and foot. Yes, 2 is more attractive through her front end and is longer patterned, but she goes second. She is also pinched in her fore rib and tapers out of her upper hip.

Yet she still beats 3 in the middle pair because she is the sounder structured heifer that is more correct in the angle to her shoulder and is the longer hipped female who moves with more flex to her hock. She is also cleaner patterned and blends her thinner neck into a smoother shoulder. Three is heavier muscled, but she is the heaviest conditioned, coarsest made, and is somewhat straight in her shoulder.

However, in a bottom pair of structurally incorrect females I like the substance found in 3 over 4. She is simply the bolder sprung, deeper bodied female who appears to be easier fleshing. She also comes with more width out to her pins and steps down wider at her base on more bone. 4 is longer and cleaner patterned, but she too is straight in her

shoulder and is the flattest made, lightest muscled and potentially the hardest keeping heifer of the class.

Example of a poor set of heifer reasons

Hi. I'm Ashley Smith from Long Lake FFA. I placed the Angus heifers 1-2-3-4. I liked one because he was real pretty from the side and had a lot of muscle. Two was longer but didn't have as much muscle. In the middle pair I like 2 over 3. Two had a lot of muscle and good feet and leg structure. Three was bigger, but didn't have as nice a look. In the bottom pair I liked 2 over 4. Three was bigger and had more rib. Four was longer but was the lightest muscled and didn't have a good feet and leg structure. For these reasons I placed the Angus heifers 1-2-3-4.

What is wrong with this set of reasons? Plenty. First she introduces herself and school which are not needed. She uses poor descriptions such as 'pretty' and 'a lot of' and 'good'. Her terminology isn't very well developed and is very repetitive. She is talking heifers and says 'he' instead of 'she'. In the bottom pair she gets her numbers confused. Instead of saying '3 over 4' she says '2 over 4'. Finally she closes by repeating her placing which isn't necessary. Sets such as the one above should be avoided and scored in the low twenties.

Helpful Cattle Websites

www.okstate.edu www.simmgene.com
www.angus.org www.beefimprovement.org
www.nalf.org www.hereford.org
www.judging101.com

Sheep

Ewes:

Ewes should be large framed as to indicate a late maturity pattern. They should be youthful in appearance and pleasing from the side in terms of levelness and smoothness of pattern. They should have adequate spring of rib, width of base, and substance of bone. They should also display the character of their respective breed. Small framed, heavy conditioned and course females should be avoided.

Market Lambs:

Market lambs should first be evaluated from a distance to determine balance, muscle, and size. They should be long and level bodied, extended and smooth thru their front end and tight hided. They should display width out to their dock and a deep, shapely leg. When handling them, they should be expansive and fresh over their rack and loin with the hindsaddle being long. In most contests contestants will be allowed to handle the lambs to determine muscle over the rack, loin, and leg, fat cover over the fore rib, and length from the last rib back. Contestants are generally given ten seconds to handle each lamb. Contestants should use handling as a method of sorting close pairs and to get detailed information for either reasons or questions. The contestant should have a good idea of how the class should be placed before handling the lambs.

Rams or Bucks:

Rams should have similar balance and size attributes as females but more emphasis is placed on muscle. They should also be correct in testicular size and shape. They should also display breed character.

Breed Character:

Breed character for medium-wool sheep

Each purebred association has developed standards that must be met before any animal can be registered in their respective association. The physical characteristics of each breed are referred to as breed character. Differences in breed character have very little to do with how a class is actually placed, but differences in this area are critical for reasons

and questions. A description of breed character for some of the medium-wool breeds of sheep is included below.

Dorset

Dorsets are completely white in color and can be polled, horned, or scurred. A Dorset with desirable breed characteristics should have a wool cap that extends over the forehead, but not below the eyes. Generally the legs will be free of wool from the hocks and knees down, however it is acceptable if a small amount of wool is seen on the lower legs. The ear should be slightly less than moderate in length, fairly thick and set perpendicular to the head. Short white hair, not wool, should cover the ear. A Dorset should have no black fibers or dark pigmentation as to indicate the influence of another breed.

Columbia

Columbias are hornless, white-faced sheep derived from mating Lincoln rams with Rambouillet ewes. This breed is generally larger framed than Dorsets. Breeding stock should be open faced; however, a small, but very distinct wool cap may cover the poll, with no wool on the face or around the eyes. The ears are of medium size and carried horizontally from the head. Legs are white and should be free of wool from the knees and hocks down. Black pigment on the nostrils and hooves and in small spots on the ears is not objectionable. However, Columbias should have no black fibers.

Suffolk

Suffolks are black at their points, in other words they should have black hair with no wool about their head and legs. However, some younger lambs may have a small amount of wool on their forehead, which is not objectionable, but should be mentioned in a set or reasons. Suffolk ears should be long, fine textured, black in color and flipped up on the ends. The ears are often times called bell shaped because they hang down along the head and open towards the corners of the mouth. The legs should be black and free of wool

from the knees and hocks down. Rams and ewes exhibiting black fibers on the neck or body should be discriminated against.

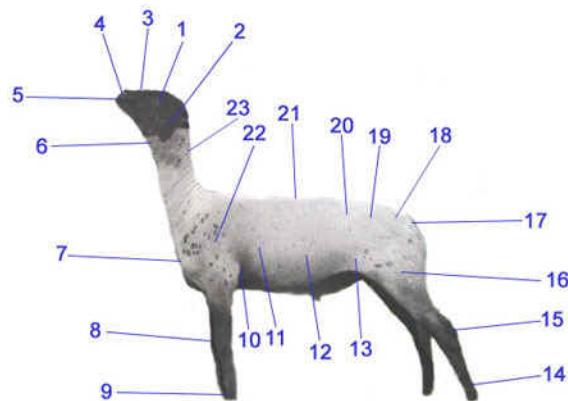
Hampshire

Hampshires are hornless and exhibit black or dark brown points with a full wool cap extending from the neck, over the forehead to the base of the eyes. The wool cap should not extend below the eyes or commonly referred to as the channel. The ears are moderate in length, thick and covered with black or dark brown hair. A Hampshire ear will not be as long or fine textured as a Suffolk. The legs should be dark brown or black in color with little or no wool below the knees and hocks. Purebred breeding stock with black fibers about the neck and body should be discriminated against.

Breed character for fine-wool sheep

Rambouillets are generally used in fine-wool judging classes. This breed is white in color can be polled or horned and usually much more refined in their appearance than the white faced medium-wool breeds. The head of a Rambouillet should exhibit a full wool cap extending from the neck to the front of the eye. Discriminate against breeding stock that has too much wool around the eyes causing wool blindness. The ear should be broad, thick and relatively short. Legs may have some wool below the knees and hocks, which is not objectionable.

Parts of a Sheep



1. Eye	2. Ear	3. Face
4. Nose	5. Muzzle	6. Throat
7. Breast	8. Knee	9. Toe
10. Heart Girth	11. Ribs	12. Middle
13. Flank	14. Pastern	15. Hock
16. Leg	17. Dock	18. Rump
19. Edge of Loin	20. Loin	21. Back
22. Shoulders	23. Neck	

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Example Animals



Here we have a Suffolk or Suffolk cross wether. He appears to be of adequate frame size and weight and has good substance of bone. His problems deal with both muscle and balance. From the side it is obvious his leg is flat and that he is somewhat steep out to his dock. He also appears to be weak behind his shoulders. Furthermore, he appears somewhat pelted as evidenced by the excess skin folds on his neck, although this is a minor detail. This would be an example of a lamb that is most generally meant to be in the bottom pair.

Sheep Terms

Frame:

-Larger framed

-Small framed

- Bigger outlined
- Heavier weight
- Growthier
- Taller fronted
- More skeletal extension
- Light weight
- Early maturing
- Low fronted
- Short sided or short coupled

Balance:

- Has a longer thinner neck
- Ties a longer, thinner neck into a smoother shoulder
- Lays in tighter at the top of his shoulder
- Longer and leveler from the top of his shoulders to his dock
- Leveler hiped
- Tighter hided
- Ties his neck in higher at the top of his shoulders
- Short, thick neck
- Open and course shouldered
- Steep hiped
- Pelty
- Ewe necked/low at neck shoulder junction

Overall Appearance:

- More eye appealing
- More stylish
- Higher performing
- Hits me harder from the side
- Strikes me from the profile

Breeding Sheep Specific Terms

Muscle:

- Stouter made and heavier muscled
- Frail and light muscled

- Is thicker and fuller out to his/her dock
- Tappers out to his dock
- More muscle volume
- More natural thickness
- Wider based or tracking
- Narrow based or tracking

Body Dimension:

- Bolder sprung
- Flat sided
- More body dimension
- More body capacity
- Tight ribbed

Structure:

- More correct on his/her feet and legs
- Stronger pasterns
- Weak pasterns (slang is coon footed)
- Stood squarer from hock to ground
- In at the hocks

Market Lamb Specific Terms

Finish:

- Cleaner patterned
- Cleaner or trimmer thru his breast and middle
- Wasty thru his breast and middle
- Handles leaner over his fore rib
- Soft over his fore rib
- Handles firmer down his top

Muscle:

- Stouter made and heavier muscled
- Frail and light muscled
- Handles with more tone and expression to his rack/loin edge/inner leg
- Handles with a larger leg circumference
- Handles with a plumper, meatier leg
- Spans the wider, deeper loin
- Narrow and shallow over his loin

- Is thicker and fuller out to his dock
- Tapers out to his dock
- Handles with a thicker, fuller loin edge
- Handles fresher over his rack and loin
- Pinched over his rack and shelly thru his loin
- Measures longer from his last rib back or with the longer hindsaddle or loin or hip
- Measures with a short hindsaddle

Carcass:

- Handles with more product from his last rib back
- He is cleaner patterned and handles leaner over his fore rib, thus he should have an advantage in yield grade.
- Higher cutability (heavier muscled and leaner)
- He is the leaner handling lamb who meets my hand with more tone and expression to his rack and inner leg. Consequently he should hang a shapelier carcass.
- He simply handles with more meat animal shape.
- He is the biggest outlined, cleanest patterned lamb and with his kind comes a cutability advantage.
- He is the wider gauged more product driven lamb who has a weight advantage and spreads more muscle from his last rib back (or spans the wider top and descends into a larger leg).
- A shapelier carcass with a higher conformation score

Wool Terms

- Britch Wool: Usually the coarsest in the fleece, from the lower parts of the hindquarters.
- Burry Wool: Wool that contains burrs from any plant source that will require special processing.

Character:	The evenness and distinctness of crimp in wool fibers.
Clip:	The process of shearing or clipping. The weight or type of wool from a certain flock.
Condition:	Refers to the amount of dirt or grease in the fleece. A fleece that is heavy conditioned will shrink or lose a larger percentage of its weight in scouring.
Cotted Fleece:	Fleece in which the fibers are matted or felted.
Crimp:	The natural waviness in the fibers. A tighter crimp is more desirable
Grease wool:	Shorn wool before washing or scouring.
Kemp:	A chalky white, weak, brittle fiber bound mixed with normal fibers of a fleece. Kemp will not take dyes.
Lanolin:	Wool grease or yolk that has been refined.
Luster Wool:	Wool that shines because it reflects more light.
Quality:	A term used to describe the fineness of the fibers.
Raw Wool:	Wool in the Grease.
Run-Out Fleece:	A Fleece that lacks uniformity, being hairy or kempy in the britch or elsewhere.
Scouring:	Removing the grease and dirt from the wool.
Spinning count:	A numerical system of wool grading on the basis of the number of hanks of yarn that can be spun from it.

- Staple:** Used in reference to length of wool fiber. Longer is more desirable
- Tags:** The heavy manure-covered locks.
- Yield:** The percentage of clean wool fibers after scouring.
- Yolk:** The secretion of sebaceous or oil glands in the skin. A certain amount is needed to keep the wool in good condition.

Performance Sheep

There are not as many genetic values published for sheep as for cattle. Below are some examples of what might be seen in a contest, including some genotypic information regarding spider and scrapie. Until recently the sheep industry used FEEDs (Flock Expected Progeny Difference) instead of EPDs the difference being that FEEDs are not comparable across flocks. Some of the EPDs mentioned below are still in the developmental stages, but will be seen in the future. For contest situations it isn't important whether or not the data given is an EPD or FEED because the underlying assumption in a contest is that all animals in a class come from the same flock. Currently there is a lot of variability in what may be seen from performance information at a contest. Many of the above traits are not in use currently, but will be in the future.

Trait	Desired direction	Description
Maternal milk	Intermediate	Measured in pounds of lamb weaned due to the ewe's milking ability
Milk+Growth	High	The combination of the ewe's ability to milk and the direct growth of the lamb
Number of lambs born	High	A measure of the number of lambs born per parity.
Weaning weight*	High	Measured in pounds of lamb

Postweaning weight*	High	Measured in pounds of lamb
Yearling weight*	High	Measured in pounds of lamb
Grease fleece weight	High	A measure of the weight of the shorn fleece in pounds
Fiber Diameter	Low	Measured in microns it is a measure of the fineness of the fleece
Fiber length	High	A measure of the staple length. A longer fleece means more wool.
Fat thickness	Intermediate	A measure of the external fat thickness
Ribeye Area	High	A measure of the ribeye area in square inches
Carcass Value Trait	High	An index calculated from the age of lamb, weight, ribeye area, and fat depth.

*These weights are reported differently for farm and range flocks. Farm flocks report 60 day weaning weights and 120 day postweaning weights while range flocks receive 120 day weaning weights and yearling weights.

Genotypic information

Trait	Desired genotype	Undesirable genotype
Spider	RR	QQ
Scrapie	NN	SS

The above traits have desired genotypes that are homozygous negative and undesirable genotypes that are homozygous positive. The intermediary would be a heterozygote (one of each type of allele). The heterozygotes would be considered carriers and less desirable than the homozygous negatives but more desirable than the homozygous positives.

Performance Sheep Terms

- Her growth genetics suggest her sons could be more marketable as commercial rams.
- The spread between her 90 and 120dy wt genetics suggest her offspring will experience more post weaning gain.
- She easily puts the most substance into the most attractive profile and thus is the best suited for the production of elite show stock.
- If she holds true to her kind I would expect her offspring to be more successful in the show ring.
- If she holds true to her genetics, her sons could be more marketable to producers wishing to enhance growth.
- She is the more growth-oriented ewe both on paper and visually.

Sample performance data, scenarios, and reasons

Performance Suffolk Rams

ID	birth/rearing type*	M	M+G	120d Weight
1	TW/TW	.30	1.30	3.0
2	S/S	.33	1.40	3.3
3	TW/S	.35	1.42	3.6
4	TR/TW	.39	1.60	4.2

*Indicates if the lamb was born as a Single (S), Twin (TW) or Triplet (TR) and how it was reared (raised).

Place these rams as they will be used in a purebred flock that profits mainly from the sale of rams and ewes to both purebred and commercial producers.

From the data alone, it appears that the class should be placed 4-3-2-1, with the closest pair being the middle. With the given scenario, all three columns of data are

important, but there is very little variation in the Milk numbers. Therefore, most of the emphasis should be placed on the Milk and Growth column and the 120d Weight column. With this in mind, 4 easily excels in both columns and 1 finds his way to the bottom. The closest differences in data occur in the middle pair.

Sample Performance Suffolk Rams Reasons

4-3-2-1 is my placing of the Performance Suffolk rams. In the top pair it is 4 over 3. He is easily the heaviest muscled and most growth oriented ram who has the most testicular development. As a result, he should be the most profitable to this flock. I grant that 3 shows more Suffolk breed character by being darker at his points, but he is fine boned and short sided.

In the middle pair it is 3 over 2. He appears to be the later maturing ram that is more nearly level from his shoulders to his dock and is more extended thru his front end. I admit 2 is heavier boned, but he is third. He is also low in his dock set and course shouldered.

In the bottom pair it is 2 over 1. He is simply bigger outlined and offers more growth to his offspring. He is also the bolder ribbed ram who stands on more bone. I realize 1 is leveler hipped, but he is also the smallest framed, least growth oriented and the coarsest made buck of the class.

Performance Suffolk Rams

ID	birth/rearing type*	M	M+G	120d Weight	Genotype
1	TW/TW	.30	1.30	3.0	RR NS
2	S/S	.33	1.40	3.3	RR NS
3	TW/S	.35	1.42	3.6	RR NN
4	TR/TW	.39	1.60	4.2	RR NN

*Indicates if the lamb was born as a Single (S), Twin (TW) or Triplet (TR) and how it was reared (raised).

Place these rams as they will be used in a purebred flock that profits mainly from the sale of rams and ewes to both purebred and commercial producers. This flock exhibits and sells elite offspring at national events and retains ownership on all cull progeny.

From the data alone, it appears that the class should be placed 4-3-2-1. This time, however, the middle isn't as close. With the given scenario, all four columns of data are important, but there is very little variation in the Milk numbers. Therefore, most of the emphasis should be placed on the Milk and Growth column, the 120d Weight column and the genotype. With this in mind, 4 easily excels in all columns and 1 finds his way to the bottom. The middle, which was close before, is now separated by the fact that the 2 ram is a carrier for Spider. If animals are carriers they will be highly discriminated against at national events.

Sample Performance Suffolk Rams Reasons

4-3-2-1 is my preferred alignment of the Performance Suffolk rams. In the initial pair it is easily 4 over 3. He is simply the heaviest muscled and most growth oriented ram, both on paper and visually. Consequently his sons should be the most marketable as commercial rams. As a result, he should be the most profitable to this flock. I grant that 3 shows more Suffolk breed character by being darker at his points, but he is also fine boned and short sided.

In the middle pair it is 3 over 2. He appears to be the later maturing ram that is more nearly level from his shoulders to his dock and is more extended thru his front end. These advantages in size and balance coupled with his more desirable genotype suggest he should better serve as a marketing tool at national events. I admit 2 is heavier boned, but he is third. He is also low in his dock set, course shouldered, and posses an undesirable genotype for Spider.

In the bottom pair it is 2 beats 1. He is simply bigger outlined and offers more direct growth to his offspring. He is also the bolder ribbed ram who stands on more bone. Finally, his kind coupled with his maternal columns suggests his later maturing

daughters should be more valuable replacements. I realize 1 is leveler hipped, but he is also the smallest framed, least growth oriented and the coarsest made and the least desirable in his genetic profile of any in the class.

Market Lambs Sample Reasons

1-2-3-4 is my placing of the market lambs. One wins as he is the heaviest muscled and nicest balanced. He should easily kill with the heaviest and most shapely carcass. Two is leaner over his ribs, but he is second as he flattens into his lower leg and is the frailest boned.

In the middle I placed 2 over 3. The blue wether is more attractive from the side and leaner. He should kill with a yield grade advantage. Three is heavier muscled but I like him third. He is the shortest sided and the coarsest fronted.

Three places over 4 in the bottom pair. The Hamp appearing wether is larger framed and heavier muscled. He is also leveler made. Four is smoother at his shoulder, but he goes fourth. He is both the lightest muscle and the stalesst lamb of the class.

Market Lambs Sample Reasons

1-2-3-4 is my preferred alignment of the market lambs. One easily wins as he uniquely combines style with power. From the outside he is the neatest through his front end and the longest and levelst topped. As I step to handle him he is not disappointing. He easily has the most tone to his rack and meets my hand the fullest over his lion edge while descending his muscle advantage into the largest leg. He should easily kill with the heaviest and most shapely carcass. Yes, 2 is leaner over his ribs, but this doesn't compensate from the fact that he flattens into his lower leg and is the frailest boned.

Now, in a middle pair that contrasts in type, I personally prefer the balance and cutability advantages of 2 over the power of 3. The blue wether is more extended

through his front end and lays it in more correctly at the top of his shoulders. He is also cleaner through his breast and middle, handles leaner over his fore rib, and measures significantly longer from his last rib back. Consequently, he should kill with a yield grade advantage. On the other hand 3 is more expansive in his rack, comes out of a fuller hip and into a meatier leg but I like him third. Not only is he the shortest hindsaddled, but his is also the thickest necked and the coarsest and most open through his shoulders.

Yet he still beats 4 in the final pair. The Hamp appearing wether simply is at a heavier weight and handles fresher and with more product from his last rib back. To add to this he is more nearly level from his rack out to his dock. I admit 4 measures longer and is smoother at the point of his shoulder, but he goes fourth. Not only is he the weakest in his top line, but more critically, he is the narrowest gauged wether who is pinched over his rack, shelly through his loin edge and thus both the lightest muscled and the stalest lamb of the class.

Example of a Poor Set of Market lamb Reasons

I placed this class of market lambs 1-2-3-4. I liked 1 over 2 because he had more muscle and was lean. I liked 2 over 3 because had more muscle but I fault 2 for he didn't look as nice from the side as 1 but was still better than 3. In the bottom I liked 3 over 2 because he was bigger and should have more meat. I placed 4 at the bottom because he was the fattest and didn't have any muscle. For these reasons I placed the market lambs 1-2-4-3, wait no, 1-2-3-4.

To begin with this set of reasons is too short and not descriptive enough. A good set of reasons should paint a mental picture in the mind of the reasons taker of the class that is being described. This set of reasons uses very general terms that do not adequately describe the differences among the four animals. Additionally, there is not a clear format being used. There are no grants within the pairs. In the bottom the numbers are switched; it should be 3 over 4, not 3 over 2. Even though this set of reasons is short, there are unnecessary words being used. For example, in the opening this person says 'this class of market lambs'; instead they should just say 'the market lambs'. At the end

they repeat their placing which is unnecessary and in this case leaves room for another mistake, mixing up their placing.

Hampshire Breeding Ewes

1-2-3-4 is my placing of the Hampshire breeding ewes. In the top pair I placed 1 over 2. One is the most attractive from the side and is also the longest bodied. I grant that 2 is wider based and bolder ribbed, but she is also the courser made ewe who is low in her dock set.

In the middle pair it is 2 over 3. She is the larger framed; heavier muscled ewe that is easily bolder sprung. Three is leveler made and more refined in her look, but she goes third. She is also the frailest and lightest muscled ewe of the class.

In the bottom pair 3 places over 4. She is taller fronted, cleaner patterned and appears to be later maturing. Four is heavier muscled and stands on more bone; but she is also the smallest framed, coarsest made and the heaviest conditioned female who appears to be the earliest maturing ewe of the class.

Hampshire Breeding Ewes

1-2-3-4 is my placing of the Hampshire breeding ewes. In the top pair of larger framed, higher performing ewes, I opted for the balance and femininity found in 1 over 2. One is easily the most attractive from the side as she ties the longest, thinnest neck into the smoothest shoulder. She is also the longest patterned female who maintains the levellest topline on the move. To add to all this, she exhibits the most Hampshire breed character as she is the fullest in her wool cap. I admit that 2 is wider based and bolder ribbed, but she is also the courser made ewe who is low in her dock set.

In the middle pair 2 easily beats 3. She is the larger framed; heavier muscled female that is easily bolder sprung. She also sets down wider at her base on more

substance of bone. There is no doubt that 3 is leveler made and more refined in her look, but she goes third. She is also the frailest and lightest muscled ewe of the class.

In the bottom pair of ewes that contrast in type, I like the femininity of 3 over 4. She the taller fronted cleaner patterned female who appears to be later maturing. On the other hand 4 is heavier muscled and stands on more bone; but she is also the smallest framed, coarsest made and the heaviest conditioned female who appears to be the earliest maturing ewe of the class.

Helpful Sheep Websites

www.nsip.org

www.judging101.com

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Market Goats

The following section, albeit brief, is designed to give very general placing criteria for market goats. Showing of market goats is beginning to be very popular all over the United States and consequently, it is logical to assume that some contestants may be confronted with placing classes of goats in the future.

The same selection criterion comes to mind when placing goats as any other market animal: compositional correctness, structural correctness, and balance. To evaluate muscle look at the width of base and study the animal from behind. The widest part should be from stifle to stifle. When handling a goat the loin should be wide and deep, they should have a thick rump, and a large meaty leg. They should be wide from end to end, with width thru the chest floor and good spring of rib indicating volume and capacity. Correctness of finish is different than sheep. Goats need adequate finish and thus 'leaner is not always better', but excess fat should be avoided.

A structurally correct goat should stand square on all fours with adequate bone. Their neck should ascend out of the top of their shoulders and not be open shouldered. They should have a long rump that slopes slightly from hooks to pins and be strong on their pasterns.

Balance would include being long bodied, having a long neck, and being relatively smooth shouldered. All the parts should blend together smoothly; the neck into the shoulders, and the shoulders into the fore-rib.

Swine

Gilts:

Gilts, like females from any other specie, should be structurally correct. They should be sound out of both ends of their skeleton and have adequate bone. They should be built wide from the ground up and have spring of rib. They should also be large framed. Finally they should have refined, yet prominent underlines.

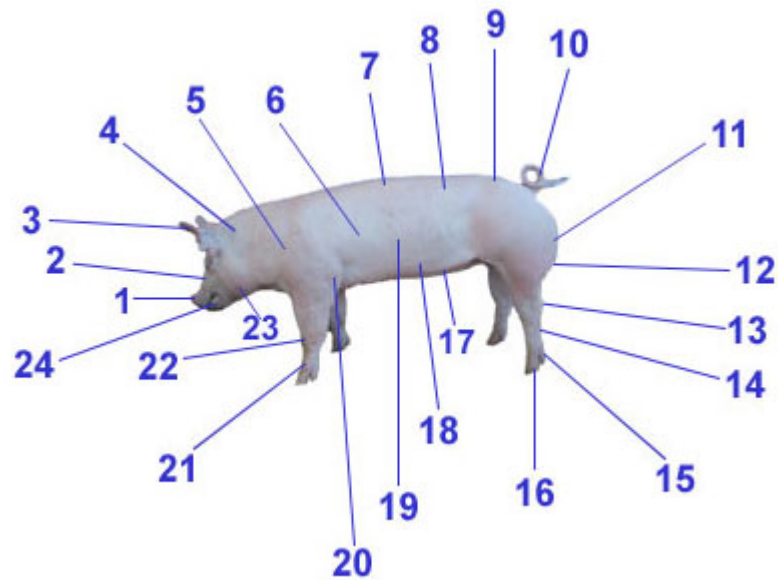
Boars:

Boars should be large framed, heavy muscled and lean. They should be sound footed as well and be correct in their testicular size with respect to their age.

Market Hogs:

Market hogs should be heavy muscled and lean. They should be large outlined as to reflect fast growth. Finally, they should be sound moving as well. The ideal market hog weight varies, but between 230 and 280 pounds is generally thought to be an acceptable window by today's standards. An acceptable amount of backfat is generally no more than .7 inches.

Parts of a Pig



1. Snout	2. Face	3. Ear
4. Neck	5. Shoulder	6. Ribs
7. Back	8. Loin	9. Rump
10. Tail	11. Ham	12. Cushion of Ham
13. Hock	14. Cannon	15. Dewclaw
16. Toe	17. Teat	18. Belly
19. Side	20. Elbow	21. Pastern
22. Knee	23. Jowl	24. Mouth

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Example Animals



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The above picture is of a Duroc barrow. Although we are only able to see him from the side, motionless, we can still tell everything we need to know about him. He appears to be relatively sound as evidenced by the way his knee is set back, the apparent cushion to his pastern and the angle to his hock. He appears to carry some excess fat; he has a little extra under his jowl and middle and is putting on excess fat in his elbow pocket. He also appears to be short sided. The main problem with him is the lack of muscle, and as a result, the lack of shape. He appears to be extremely flat thru his ham and from the side, doesn't show much shape over his loin edge. This would be an example of a market hog that is unacceptable in terms of muscle dimension and would generally find his way into the bottom pair.



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Here is an example of a Duroc Gilt. We will analyze her both as a breeding gilt and as a market hog. We can notice that her shoulder appears to be straight, there isn't cushion to her pastern, and there appears to be slight swelling in her hocks indicating she is unsound. Notice how she is deeper in the front part of her rib as compared to her flank. This gilt lacks rib shape. However, she appears to be ultra lean as evidenced by the complete absence of fat in her lower body, and the expression to her blade and loin edge. She is also good in terms of her length of body. As a breeding gilt she would be highly criticized for being unsound and tight ribbed. These problems hold true as we analyze her as a market hog, but compositionally she would be more desirable than the barrow discussed previously.

Swine Terms

Muscle:

- | | |
|---|---------------------------|
| -Built wider from the ground up | -Narrow based |
| -Pulled apart wider at his/her blades | -Pinched in his/her blade |
| -More opened up in his/her top | |
| -Has a bigger, squarer loin laying down his/her top | -Non-descript in his top |
| -More powerful ham or from behind | |
| -More muscular turn to his/her loin edge | |
| -Spreads more volume of muscle from blade to hip | |
| -Deeper tying ham | |
| -More honest turn to his loin edge | |
| -A butterfly shape top | |

Leanness:

- | | |
|---|-------------------------------------|
| -Cleaner constructed | |
| -Cleaner thru his/her jowl and lower body | -Wasty thru his jowl and lower body |

- Totally free of fat throughout
- Cleaner profiling
- He/She reads leaner at his/her 10th
- Reads fatter at his/her 10th

Structure:

- More mobile
- Works out of a longer, looser hip
- More set back at his/her knee
- More correct in the angle to his/her shoulder
- Moves with more flex and give to his/her hock
- Takes to the ring with more mobility out of both ends
- More durable
- Moved with more stability
- More even toe size
- Truer tracking from the rear
- More confinement adaptable
- Short and tight hip
- Over at his/her knee
- Straight /upright in his/her shoulder
- Straight in his/her hock and pastern
- Frail
- Small inside toe
- Hocks in

Breeding Swine Specific Terms

Underlines:

- More refined about her underline
- More prominent underline
- More uniform in her teat size and placement
- More functional underline
- Course about her underline
- Blunt in her underline
- Pin nipples

Market Hog Specific Terms

Carcass:

- Should generate more premiums on a lean value based system
- Has more potential lean cut out value
- Should rail the higher cutability carcass
- Simply spreads more product from blade to hip
- Should rank higher on a fat-free lean index

Performance Swine

Trait	Desired Direction	Definition
Days to 250	Low	The number of days taken to reach 250 pounds. Indicates those that are fast growing.
Backfat	Low	Measured in inches at the 10 th rib.
LEA	High	Loin Eye Area adjusted to 250 pounds.
Pounds of Lean	High	Pounds of fat free lean adjusted to a 250 pound live pig. Calculated from backfat and LEA EPDs.
NBA	High	The number born alive in a litter.
Litter Wt.	High	The weight of the litter at 21 days.
TSI	High	Terminal Sire Index. An economic index used when selecting Terminal sires. Includes Backfat, Days to 250, Pounds of Lean, and feed efficiency.
SPI	High	Sow Productivity Index. A measure of the Productivity of a sow. Includes NBA, Number weaned, and Litter wt.
MLI	High	Maternal line Index. An economic index used in the selection of replacement gilts.

Performance Swine Terms

- If she holds true to her kind, I would expect her offspring to generate more interest at national events.
- If she holds true to her lean genetics, her progeny should excel on a lean value based system.
- His kind coupled with his exceptionally high index suggests his offspring should excel in the ring and later in the cooler.
- His unique combination of show ring look and commercial genetics makes him the best suited for the given scenario.
- His unique blend of terminal and maternal strengths suggest he is the most practical commercial boar.
- Her maternal genetics suggest she should be the most productive.
- Genetically she is superior, but it is her kind that should make her the most profitable.
- If he holds true to his kind and growth genetics, his offspring should be faster growing and excel in the cooler.
- Her kind coupled with her maternal genetic suggests she should be the most productive in the crate.
- Her broody look coupled with her maternal columns suggests she should experience the most longevity while being the most profitable for this herd.
- Yes, his lean genetics are superior, but this doesn't make him right. He's the tightest ribbed, the frailest boned.....

Sample performance data, scenarios and reasons

Performance Duroc Boars

Animal	Days	BF	TSI
1	1.01	.03	103.2
2	-2.5	-.01	117.9
3	-4.6	.00	125.0

4	-4.8	-.01	127.2
BA	-.53	.01	109.5

Rank these boars as they will be used as terminal sires for the production of market hogs.

Based off of the above data alone the Boars should be placed 4-3-2-1, with a close top pair. With the production of market hogs in mind, all three data columns (Days, BF, TSI) become important and since TSI incorporates both Days and BF, the majority of emphasis concerning the data can be placed on that value.

Performance Duroc Boars Sample Reasons

4-3-2-1 is my placing of the Performance Duroc Boars. In the top pair I placed 4 over 3. He is the biggest outlined, cleanest constructed boar who has the most shape from blade to hip. I grant 3 has more testicular development, but placed him second. He's somewhat wasty in his jowl and flat at the base of his ham.

However, in the middle pair it's 3 over 2. He's simply the heavier muscled, leaner boar who is higher indexing and thus holds more profit potential as a terminal sire. I admit 2 is more set back at his knee, but he is also narrow based, and wasty thru his lower one third.

In the bottom pair it's 2 over 1. He is the bigger outlined, later maturing sire who is higher indexing. I would expect his progeny to spend fewer days on the feeding floor and excel on a lean value based system. Sure one is the soundest footed boar of the class, but he is also the least desirable in all measures of performance and is the smallest framed, lightest muscled boar of the drive.

Performance Duroc Boars

Animal	Days	BF	Lbs	TSI	SPI
1	1.01	.03	-.35	103.2	104.2
2	-2.5	-.01	.15	117.9	102.6

3	-4.6	.00	.70	125.0	104.6
4	-4.8	-.01	.75	127.2	104.6
BA	-.53	.01	-.05	109.5	100.2

Rank these boars as they will be used as terminal sires for the production of market hogs. Elite barrows will be sold as club projects.

Here the placing remains the same as above. Here all columns are important with the exception of SPI since SPI is a measure of the dam's productivity. SPI can, however, indicate any potential litter mates. To be litter mates they must have the same SPI and have the same litter notch in their ear. Recognizing litter mates can be beneficial for both reasons and questions. With the addition of the club pig part of the scenario no real placing criteria changes but in reasons one should point out if one boar is nicer from the profile with muscle and leanness as to indicate a show ring look.

Performance Duroc Boars Sample Reasons

4-3-2-1 is my preferred alignment of the Performance Duroc Boars. In the initial pair of littermates who hold more profit potential as terminal sires, I liked the look from the side found in 4 over 3. He is the biggest outlined, cleanest constructed boar who has the most shape from blade to hip and if he breeds true to his kind I would expect his offspring to be more successful in the show ring. I realize 3 has more testicular development, but placed him second. He's somewhat wasty in his jowl and flat at the base of his ham.

However, in the middle pair it's 3 over 2. He's simply ties more lean muscle content onto a bigger skeleton. This combined with the fact that he higher indexing suggests he holds more profit potential as a terminal sire. I admit 2 is more set back at his knee, but he is also narrow based, and is wasty thru his lower one third.

Now, in the bottom pair 2 beats 1. He is the bigger outlined, later maturing sire who is higher indexing and I would expect his progeny to spend fewer days on the feeding floor and in the end excel on a lean value based system. Sure one is the soundest footed boar of the class and was farrowed out of the most productive dam, but he is also

the least desirable in all measures of performance and is the smallest framed, lightest muscled boar of the drive.

Example of a poor set of Performance Duroc Boar Reasons

4-3-2-1 is my placing of the Duroc Boars. I see this class as easily breaking up into a top and bottom pair with a close middle. In the top pair I liked 4 over 3. The boar with the green paint mark on his side is easily the biggest and leanest boar that has the most shape to his top, works the rawer blade, is the cleanest underneath, and has the most shape and outward turn and flare to his ham. Yes, 3 has larger testicles, but he is kind of light muscled.

In the intermediate duo it is 3 over 2. He is the longer bodied, longer sided boar who is heavier muscled. He is also higher in his TSI and MLI and pounds data and should have pigs that are more packer acceptable. I admit that 2 is thicker at the base of his ham, but he is also wasteful in his lower one third.

In the bottom pair 2 beats 1. He is bigger, leaner, and faster growing. On the other hand, 1 is more maternally oriented but goes last. He is the narrowest over his loin, out of his hip, and the flattest at the base of his ham. He is also the narrowest based and thus the lightest muscled boar of the four.

This sample set of incorrect reasons differs from those previously given in the other species in that it gives too much detail in the wrong places. First of all, I would highly discourage anyone from opening up a set of reasons and explaining how the class broke apart into pairs for the primary reason that you could be wrong. You might have the right placing, but if you think that it is a logical top and bottom pair and a close middle and the officials think the opposite, then you have already dug yourself a large hole at the very beginning of your reasons. Yes you should be confident that you are right, but there is no need to take unnecessary risks. Using IDs that are not permanent should be avoided because they may not have been there earlier in the day or may disappear as the contest progresses, like a paint mark. When describing leanness in the top pair here, they should have been more general. It is clear that the boar is leaner

everywhere and extra time is not needed to display every leanness term you know. In the grant in the top pair, one should say testicular development and in the criticism avoid using the phrase 'kind of'. There is no need to say intermediate duo, say intermediate pair, or middle pair. In the middle pair, excessive terminology is used to describe length (long bodied and long sided are the same). The contestant also contradicts themselves by saying that 3 is heavier muscled and then granting that 2 is thicker at the base of his ham. More descriptive and fluent ways of introducing data are given above than what is used in this set. In the bottom pair if it is as close as the contestant says it is at the beginning then how does 2 beat 1? Only use the word beats when it is very clear that one is better than the other. The transition 'on the other hand' should only be used when two animals contrast in type. Again, excessive terms are used again at the end to describe how 1 is light muscled. Simply say that 1 is the narrowest skeletoned and lightest muscled boar of the class. Try to avoid saying that you placed one last because it sounds harsh. Only use last when it is very clear the animal is fourth and the animal is of very poor quality. Finally, ending the class with 'of the four' is fine, but in this case it rhymes with boar and rhyming should be avoided.

Market Hogs

1-2-3-4 is my placing of the market hogs. In the top pair I placed 1 over 2. She's bolder ribbed, more opened up in her top, and the most impressive from behind. I would expect her to open up the largest loin eye. Two is cleaner profiling, but she is also a frailer made gilt that is narrower at her base.

In the middle pair 2 places over 3. She is the bigger outlined leaner designed gilt that is totally free of fat throughout. Three is the soundest hog of the drive that stands on more bone, but he also reads the fattest over his 10th and through his middle.

In the bottom pair 3 places over 4. He is the sounder structured barrow who works more product from blade to hip. Four is certainly leaner but he is also the

narrowest skeletoned, lightest muscled hog that is the straightest off of both ends and thus the poorest structured hog of the class.

Market Hogs

1-2-3-4 is my placing of the market hogs. In the top pair of belted gilts I liked the power found in 1 over 2. She is simply built wider from the ground up. She's bolder ribbed, more opened up in her top, and the most impressive from behind. Consequently, I would expect her to open up the largest loin eye. Two is cleaner profiling and reads leaner at her 10th, but she is also a frailer made gilt that is narrower at her base.

In the middle pair 2 easily beats 3 because she should excel on a lean value based system. She is the bigger outlined leaner designed gilt that is totally freer of fat throughout. She reads with more lean shape to her loin edge and more expression to her ham. Yes, 3 is the most mobile hog of the drive that stands on more bone, but he also reads the fattest over his 10th and through his middle.

Still I preferred the more productively designed 3 over 4 in the bottom pair. He is the wider constructed barrow who works more product from blade to hip. He is also sounder structured as he is more laid back at his knee and moves with more flex and give to his hock and pastern. Four is certainly leaner but he is also the narrowest skeletoned, lightest muscled hog that is the straightest off of both ends and thus the poorest structured of the drive.

Breeding Gilts

1-2-3-4 is my placing of the breeding gilts. In the top pair I liked 1 over 2. She is the boldest ribbed, most powerful female of the drive. I grant that 2 is the most refined in her underline but she is also a frailer made gilt that is somewhat tight out of her hip.

In the middle pair I like 2 over 3 because she more closely follows the type of my class winner. She is the bigger outlined, higher volumed gilt that spreads more muscle

from her blade back. Three does stand on more substance of bone, but she is the smallest framed and heaviest conditioned gilt of the drive.

I still placed her over 4 in the bottom pair. She is the bolder ribbed, heavier boned gilt who is sounder. Four is bigger outlined and leaner, but she is the flattest made and the most structurally incorrect gilt of the class.

Breeding Gilts

1-2-3-4 is my placing of the breeding gilts. In the top pair I liked 1 over 2 primarily because of her width of skeleton. She is the boldest ribbed, most powerful female of the drive. To add to this she is also the cleaner profiling female who is more uniform in her underline spacing. I admit that 2 is the most refined in her underline but she is also a frailer made gilt that is somewhat tight out of her hip.

In the middle pair I like 2 over 3 because she more closely follows the type of my class winner. She is the bigger outlined, higher volumed gilt that spreads more muscle from her blade back. She is also cleaner constructed and possesses the higher quality underline. Three does stand on more substance of bone, but she is the smallest framed and heaviest conditioned gilt of the class.

However, I still liked her kind over 4 in the bottom pair. She is bolder ribbed, heavier boned and travels the ring with more mobility off of both ends. Four is certainly bigger outlined and leaner, but she is the flattest made and the most structurally incorrect gilt of the drive.

Helpful Swine Websites

www.nationalswine.com

www.judging101.com

www.ansc.purdue.edu/stages

Carcass Parameters

Specie	Trait	Range	Average
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Beef	Live Weight	950-1500lbs	1150lbs
	Dressing Percent	55-67%	62%
	Ribeye Area	10-18 sq. in.	12.6 sq. in.
	Fat Thickness	.15-.8 in.	.5 in.
Sheep	Live Weight	90-150lbs	125lbs
	Dressing Percent	45-57%	52% (shorn) 50% (unshorn)
	Fat Thickness*	.05-.5 in.	.25 in.
	Loin Eye Area	1.5-3.6 sq. in.	2.6 sq. in.
Swine	Live Weight	200-300lbs	260lbs
	Dressing Percent	68-77%	72%
	Loin Eye Area		
	Fat Thickness		

* This is an industry average. Most often show lambs will be between .05 and .20 in. and this small range would be typical of a judging class.

Definitions of Major Carcass Terms

Yield Grade- A numerical representation of the amount of red meat yield in an animal measured in the carcass. A lower number is more desirable and the range is from 1 to 5. In sheep this number is based solely off of external fat thickness. In cattle it based off of ribeye area, hot carcass weight, KPH (percentage of kidney, heart and pelvic fat), and external fat thickness (largest factor).

Quality Grade- Determined by intramuscular fat and age or maturity. In sheep the conformation of the animal plays a role as well. In sheep the intramuscular fat is subjectively measured in the flank and the majority of sheep are prime or choice (98%) with the other categories being good, utility and cull. In cattle the intramuscular fat or 'marbling' is measured in the ribeye. The possible quality grades of cattle are prime, choice, select, and standard. Most grids rewarding quality grade begin to pay premiums in the choice grade and higher.

Dressing Percent- The amount of carcass in relation to the live weight of the animal. It is affected by the fill, finish, muscling, sex, and breed type. In sheep the amount of fleece also plays a role.

USDA Grade (Swine)- Based on fat thickness at the last rib and muscle score. The possible grades are 1, 2, 3, 4, and utility. Muscle scores are from 1 to 3 with 3 being thick and 1 being thin.

Percent Muscle (Swine)- A measure of the red meat yield from the carcass. It is determined by the hot carcass weight, loin eye area, and 10th rib fat depth. A higher number is more desirable.