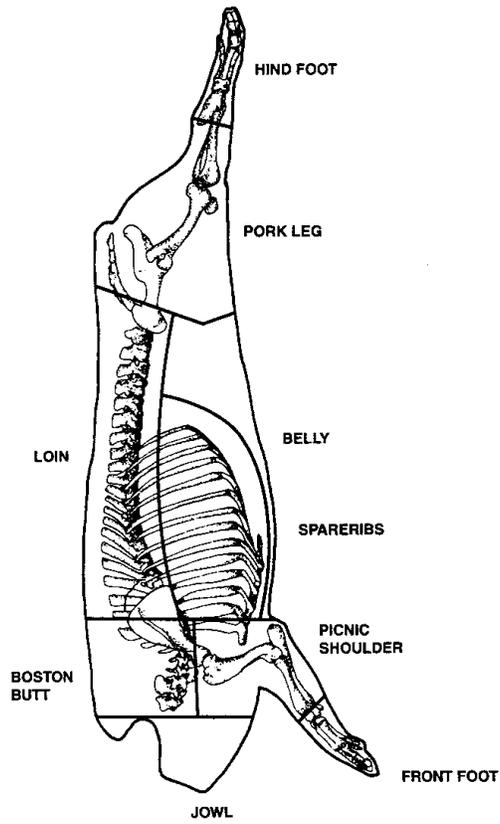
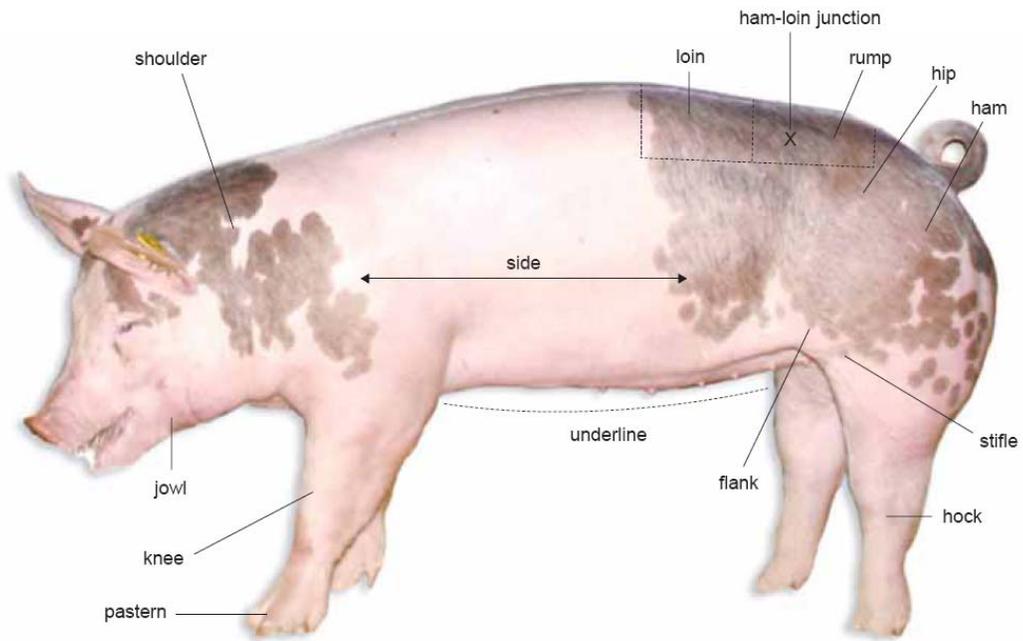


# Iowa State University Swine Judging Handout



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**ISU Livestock Judging Program**

## Parts of a Swine



## Market Hogs

- Selection Emphasis
  - Muscle- Expression, shape, dimension
    - Forearm
    - Blade
    - Loin
    - Ham
  - Lean Growth
    - Fast growing and efficient gaining
      - 170-180 days to 250 pounds
    - Leanness- absence of fat deposition
      - Acceptable= Range of .55" to .90"
      - Too lean= Less than .50"
      - Too fat= More than 1.0"
  - Structure and Movement
    - Relatively level in its view from profile
    - Stands squarely and correctly on its feet and legs
    - Proper angles to shoulder, hock, and pastern
  - Skeletal width and dimension
    - Internal volume= depth of rib, outward shape to rib
    - Animal should convert feed to gain in an efficient manner
  - Balance and Eye Appeal
    - Overall attractiveness and symmetry the animal displays from profile
    - The proportionalism of the animal

## Breeding Swine

- Selection Emphasis
  - Functionality
    - Structure and Movement- similar to market hogs
    - Internal dimension and condition
      - Depth of rib, shape to ribcage, ability to maintain condition
  - Growth and Performance
  - Balance and Eye Appeal
  - Muscle
  - Femininity/Masculinity

## Market Hog Terminology

### **Muscle Content**

#### Advantages

- Heavier Muscled
- More Carcass/Product Driven/Oriented
- More powerfully designed/constructed/muscled
- Stouter made
- Expressively muscled
- Offers more dimension over a wider skeletal foundation and should harvest more pounds of product
- Works more content and shape of muscle from blade to hip
- Opens up with more shape behind his blade and maintains this advantage out his hip
- Works more product from blade to hip
- More opened up underneath allowing him to work more shape and dimension of muscle down his top
- More dimension to center and base portions of his ham
- More descript shape to his top
- Shows more lean muscle dimension down the top side of his skeleton
- More true shape and expression
- Squares up behind his blade with a bolder more honest turn to his loin, he comes stouter out his hip and has more dimension thru the base of his ham
- Squares up with more shape behind a bolder blade
- Bolder bladed thicker topped barrow that is more expressive in his ham-loin junction and stifle
- Thicker thru center and lower portions of his ham
- Wider based, bolder ribbed barrow that works more natural muscle dimension on top
- Stouter hipped thicker hammed barrow
- Studies with the most mass and dimension of muscle down his top and thru his ham
- More powerful thru his ham

#### Criticisms

- Plain topped
- Tapers to the lower portions of his ham
- Flattens thru his lower ham
- Plainer in his top shape and is flatter in his ham

### **Lean Growth**

#### Advantages

- Leaner Designed
- More compositionally correct
- Freer of fat

- Reads freer of fat thru his lower third
- Rarer designed
- Trimmer from lower shoulder forward and sheath back
- Trimmer thru his jowl, elbow pocket, and the seam of his ham
- Freer of fat over his blades and along his loin edge
- Trimmer thru his jawline and lower cavity
- Trimmer underneath
- Leaner designed barrow that is squarer and more descript down his top
- Cleaner from blades forward
- Trimmer in front of his blade
- Trimmer thru his lower body
- Appears to have taken fewer days to 250
- Experienced an advantage in lean gain
- Larger framed
- More extended in his bonework/framework
- More skeletally extended
- Later Maturing
- More weight per day of age
- Longer bodied/sided
- More distance from blades forward/back
- Longer Cannoned

#### Criticisms

- Heavier finished
- Heavier conditioned
- Wastier designed
- Smaller framed
- Early maturing
- More compact/conventional in design
- Slower growing

### **Balance and Eye Appeal**

#### Advantages

- Nicer Balanced
- Nicer Profiling
- More attractive
- Leveler designed
- Impressive from the side
- Pleasing from the profile
- Tall fronted/shouldered
- More elevated in his tail set
- More correct in his rump structure

- The more attractive profiling, leveler designed barrow who's cranked higher at the base of his tail
- Taller shouldered barrow who is stronger behind his blades
- Nicer balanced barrow who is stronger in his ham loin juncture and leveler out of his hip
- More skeletally extended barrow that is taller fronted, stronger behind his blades and leveler rumped

#### Criticisms

- Poor Balanced
- Steep rumped/hipped
- Off in his hip
- Weak behind his blades
- Weak topped/in his topline
- Low fronted
- Broken behind his blade/shoulder

#### **Production/Structure**

- From a production standpoint
- Wider based
- Wider made
- Bigger ribbed/bodied
- Width of skeleton
- Natural skeletal width
- Bolder framed
- Sounder
- More structurally/skeletally correct
- Easier striding
- Moves with more flex to his hock
- Longer striding
- Easier moving
- Heavier structured
- Widest constructed hog that's the boldest bladed and boldest sprung
- Looser in his skeletal construction
- Offers more reach up front
- Looser in his hip and hock
- More cushion and stability off both ends of his skeleton
- More slope to his shoulder
- More backward set to his knee
- Leveler and looser spined
- Drives with more flexibility off both ends of his skeleton
- More dimension to his center body
- More arch and spring to his rib
- More internal dimension
- More pulled apart thru his center body

- He is more opened up thru his center body while being deeper in his flank
- Sounder structured as he drives the ring with more stability off both ends
- Looser skeletoned
- More mobile, athletic
- More productive in his look
- More spring and arch to his fore and center rib

#### Criticisms

- Narrow made/based
- Flat ribbed
- Narrow chested
- High flanked
- Shallow bodied/ribbed
- Tapers thru his lower skeleton
- Structurally incorrect
- Poor structured
- Tight moving
- Straight fronted/shouldered
- Restricted in his movement
- Straight in his hock set
- Tight in his hock
- Tight out of his hip
- Forward in his knee

### **Carcass Terms**

#### Carcass wise

##### Advantages

- Rail more pounds of product
- Open a larger eye
- Rail an advantage in cut out value
- Higher percent lean
- More pounds of lean product
- Rank higher on fat free lean index
- Measure leaner at the tenth
- Open with a larger 10<sup>th</sup> rib muscle
- Higher cutability
- Greater lean value
- More shapely carcass
- Less fat opposite the tenth rib

##### Criticisms

- Lower cutability carcass
- Least shapely carcass

- Least total pounds of product
- Least lean value

## **Breeding Swine Terminology**

### **Volume/Rib**

- Broodier appearing
- More opened up thru her center body
- Wider Skeletoned
- More arch and curvature to her rib
- More function in her design
- More productive in her appearance
- More practical in her kind

### **Structure**

- Looser structured/spined/constructed
- More durably designed
- Sounder structured
- Should be the most durable in confinement
- More confinement adaptable
- Offers more flex to her skeleton
- More set and cushion to her knee

### **Balance/Design**

- Longer and more elevated thru her front end
- More maternal in her appearance/look

### **Frame/Scale**

- Higher performing
- Extended in her skeleton/bonework
- Larger skeletoned
- Offers more weight per day of age
- Bigger outlined
- Reads to be later in her maturity pattern

### **Thickness**

- Works more dimension down her top and out of her hip
- Displays more honest shape to her top
- Bigger hipped

- Offers a more powerful view from behind
- Holds an advantage on the top half of her skeleton

### **Underline/Vulva**

- Finer textured, more evenly spaced underline
- More prominent in her underline
- More feminine and refined in her underline
- More correct in her teat size and spacing
- Starts farther forward with a higher quality underline
- More correct in the size and set to her vulva

## Yorkshire Gilt Reasons

I placed the Yorkshire gilts 3-4-1-2. Ideally I would like to see my class winner with a larger vulva, but the gilt with the highest quality underline simply drove at me the most opened up underneath. She has the most shape to her rib while offering the most natural thickness. In addition the most maternal appearing gilt has the highest MLI. Now, I appreciate 4 for being the other broody appearing gilt; unfortunately the shorter fronted gilt is short and steep in her rump so I like her second.

Even so, it is her added skeletal width and dimension that sorts her over 1 in my middle pair. She is built wider from the ground up, wider chested, and more opened up through her center body allowing her to work more dimension over her top. She also reads to be higher in her MLI. I agree the attractively designed gilt is more extended from her blade forward and higher at the base of her tail. However, the tipped vulvaed gilt is the narrowest based, flattest ribbed, and lightest muscled of my top three, so I left her third.

Nevertheless, in my remaining pair I preferred the longevity of the more attractively designed 1. She is naturally wider based, more productive through her rib, and she offers more depth at her flank. The nicer balanced gilt is also sounder structured, she has more reach and flex at both ends allowing her to be more relaxed at her spine. I realize that 2 is more expressively muscled; but the gilt that is the least desirable on paper is not only the narrowest based and the flattest ribbed, she is also the poorest structured gilt that gets high in her top.

Nick Siedelmann

2007 ISU Livestock Judging Team

## Yorkshire Gilt Reasons

I placed the Yorkshire gilts 1-4-3-2. I easily started the class with the most powerfully made gilt. She is the most maternal in her appearance as she offers the most depth and shape to her center body and presents a finer textured, more evenly spaced underline. From a structure standpoint she has the most flex to joints and takes the longest most coordinated stride. Now I admit the 12 litter gilt is stronger and more natural in her top line, however she simply can't match the added width and dimension of my class winner, so I marked her second.

Even so, she is the more useful appearing gilt in my intermediate pair. She drives at me more opened up under, offers a bolder shape to her center body and more depth to her flank. Furthermore, she is more correct in the angle to her shoulder, hinges out of a looser, leveler hip, and presents a more powerful look from behind. Now I realize that 3 is stouter and more extended in her bone work, however the crinkle eared gilt is flat through her rib.

Still, she holds an advantage of potential of longevity in my final pair. She is a more maternal appearing gilt that is more feminine through her front end and presents more depth to her rear rib and flank. The heavier structured gilt has more bone while having an advantage in flexibility and cushion off both ends which should allow her to be more durable. I appreciate 2 for being extended in her bone work, however the small vulva gilt concerns me the most as she is the narrowest made, the shallowest bodied, and the poorest structured being the most forward at her knee , so she's last.

Jim Thompson

2007 ISU Livestock Judging Team

## Breeding Gilt Reasons

I placed the performance Yorkshire gilts 1-2-4-3. I started with 1, as she is the highest quality female who reads the most effective in her combination of power and productivity and thus should generate the most revenue as a brood sow to this terminal based operation. To be more specific, the crinkle eared gilt is built the most dimensional from the ground up, being the widest chested, the most opened up through her center body and the most impressive as I study her from behind. Plus, the gilt that works off the most pliable skeleton plants and drives on the most substance of bone. Finally, here is the female that will significantly reduce days without sacrificing the maternal strengths established by the breed. Sure, 2 is taller fronted, more extended ahead of her blade and starts further forward with a more prominent underline. However, she is fine boned, small footed and she is at a clear disadvantage in terms of power, so she is a distant 2<sup>nd</sup>.

Nevertheless, the decision lies in a middle pair of gilts who differ in their advantages. I obviously sacrificed the added muscularity of 4, to obtain a softer look of a more functional female found in 2. The pounds heavier gilt is larger skeletoned, reads with a more productive shape to her rib and meets the surface with more flexibility off both ends of her skeleton. With this, I envision her being more durable once in the crate. I grant that the litter 8 gilt is pulled apart wider underneath, holds true to this advantage on the top half of her skeleton and may be more suitable for the production of terminal boars. But at the same time, her muscularity works to her detriment, as the small vulva gilt is extremely tight spined, steep hipped and straight hocked. Not to mention, she is the flattest ribbed and shallowest bodied of the initial three, so I prefer her 3<sup>rd</sup>.

Even so, it is her muscularity and added STAGES information that aligns her over 3 in the concluding decision. Simply put sir, she is a stouter built female that is wider chested and bolder bladed. Plus, she comes from the more productive sow and reads with a higher terminal sire index. Yes, 3 is bigger skeletoned, and longer, looser spined. Unfortunately, with an operation focused on the production of terminal boars and market hogs, she just doesn't fit. As the low indexing gilt is unquestionably the narrowest based, flattest ribbed and lightest muscled, of any in the class.

Stephen Linnebur

2006 Iowa State University Livestock Judging Team

## Commercial Gilt Reasons

I placed the commercial gilts 2134. I easily started with 2, as the speckled-rumped gilt best combines broodiness, power, and performance. The gilt with the most prominent underline is the most opened up through her center body, allowing her to work the most dimension of muscle from her blades back. If her type breeds on, I would expect her offspring to require fewer days to 250 while maintaining an advantage in carcass merit. I realize, that 1 is a leveler designed female who is taller fronted and more elevated in her tail set. However, I mark her second, as she is tight in her hip and hock, and simply gives up performance to my class winner.

Nonetheless, I simply preferred the stouter featured 1 over 3 in my middle pair of grey-rumped gilts. As I study her from the ground up, the wider skeletoned gilt is more opened up underneath, disperses more content of muscle down her top, and as she drives away, offers a more powerful view from behind. Now I admit, the gilt with the largest vulva, moves with more stability out of a looser hip and is more extended in her design as she is especially longer fronted. Yet, I left her third as she breaks behind her shoulder, and begins a bottom pair of lighter muscled, narrower constructed gilts.

Still, it is the more correctly designed 3 over 4 in my final comparison. As I study her from the side, the level-eared gilt is longer and more elevated through her front end, profiles with more length from blade to hip, and is taller at the base of her tail. Just as importantly, she reads significantly leaner through her jowl and lower 1/3, while displaying more honest shape down her topside and out her hip. Consequently, if she breeds true to her kind, I would expect her offspring to rank higher on a fat-free lean index. Now I appreciate that the belted gilt blends smoother from her shoulder into her topline, but I used her to close as she is low fronted, steep hipped, and is the quickest designed, as she is smallest skeletoned and most excessive in her cover of any in the drive.

Jake Heim

2004 Iowa State University Livestock Judging Team

## Market Hog Reasons

I placed the market hogs 2-1-4-3. I easily started the class with the most powerfully constructed white barrow. He is the widest chested, boldest at his blades and offers the most center body dimension. This allows him to work the most width over his top, be the stoutest out of his hip and offer the most dimension and shape to his ham. Additionally, he's the biggest footed, soundest structured barrow, that drives with the most length and freedom of stride. Sure the spotted barrow is taller fronted and leaner designed. However, he is shallower bodied and tight in his rear structure.

Even so in my intermediate decision I preferred 1's youthfulness over 2. He is a fresher appearing barrow, who's leaner designed. Furthermore he's taller fronted and more skeletally extended. I should expect his to rail with a higher cutability carcass. I agree, the belted barrow has a more productive shape to his rib, yet of my initial three he is the lowest set and the wastiest through his lower third. So he's third.

In my final decision it is the added dimension that places 4 over 3. He is leveler topped and works more dimension down his top. Past this he is wider framed and offers more skeletal width. I realize the grey rumped barrow is sounder fronted, however he is the lowest quality, lightest muscled, and the narrowest in his general makeup of any in the drive. So he's last.

Cassi Greiman

2007 ISU Livestock Judging Team

## Market Barrow Reasons

I placed the market barrows 4-3-2-1. I started with the predominately white barrow as he is the most effective in his combination of muscle, leanness, and design and preferred him over 3 in a top pair of leaner designed hogs. Not only does the wider skeletoned barrow drive at me with more width at his knee, but he is pulled apart further at his blades, allowing him to work more content of muscle from there back. From behind, he is a bigger hipped barrow that offers more flare and dimension to the base of his ham and should ultimately hang more pounds of product. He further separates himself from 3 when viewed from the side as he is clearly a more correctly designed barrow that is especially more stronger behind his shoulder and stands on more substance of bone. I realize, that 3's class advantage lies in the fact that he is the biggest in his kind; however, I like him second as he simply gives up the ultimate product and correctness of design found in 4.

Nonetheless, in a closer decision of grey rumped barrows, it's a matter of skeletal extension and leanness that aligns 3 over 2. There is no question that the apparently later maturing barrow reads significantly leaner as I study him from the side as he is primarily cleaner from his lower shoulder forward and tighter from his sheath back. As well, he's bigger and more extended in his skeleton while reading with a crisper, more descript shape to his top. I will certainly concede that 2 is wider skeletoned and more impressive when viewed from behind; unfortunately, he is the smallest skeletoned, wastiest designed barrow who begins a bottom pair of less descript hogs, so he's third.

Still, he's clearly heavier muscled and more productive in his look than is 1 in the bottom pair. He undoubtedly is a more product driven barrow who reads with more volume and shape of muscle wherever analyzed. This is complimented by the fact that he drives at me with more width of base and leaves with the same advantage. Additionally, he's more opened up through his center body while being deeper in his flank. The bottom line is that he appears to have taken fewer days to reach 250 and should hang a distinct product advantage. Certainly, 1 is sounder structured as he drives the ring with more comfort off both ends. Unfortunately, I think the masked barrow's place is fourth as he is the narrowest skeletoned, lightest muscled barrow who should lead to the least cutout value of any.

Adam Conover

2004 Iowa State University Livestock Judging Team

