## **Swine Selection**

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## Breeding Gilt Priorities

### 1. Functionality

- Structure
- Body
- 2. Balance and Eye Appeal
- 3. Muscle
- 4. Fleshing ability/ Optimal Condition

### Functionality = Structure and Body

For a gilt to be labeled as functional, she must be structurally sound, stay in adequate condition to breed, farrow piglets with minimal assistance, and raise her progeny



### **Breeding Gilt Environment- Functionality is Critical**

- Confined setting and farrow in crates
- If Poor structured...
  - Spend more time lying down and not as productive
- If they have one-dimensional rib shape
  - Sows have more difficulty getting up and down
  - Shoulder abrasions





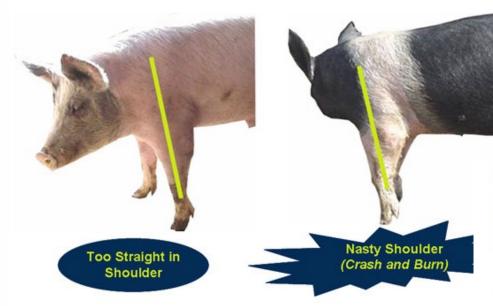
## **Structure**

Flexible, durable females that can hold up in production



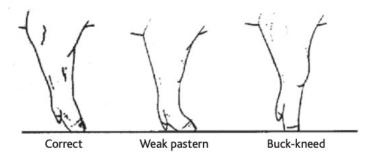
### **Front End Skeleton**

## Evaluating Structure/Soundness - Shoulders -

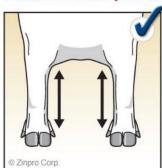


- Want 45° angle to shoulder
- Appropriate bend to knee
- Square kneed
- Cushion to pastern

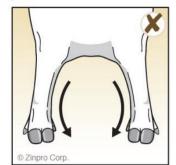
Side view of front leg



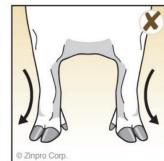
**Foot Position (front legs)** 



Square and sturdy stance



Toes turn in, bow-legged



Replacement Gilt Pocket Guide

Toes turn out,
pigeon-toed
Zinpro Performance Minerals

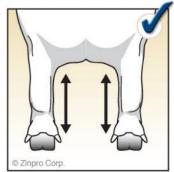


### **Rear End Skeleton**

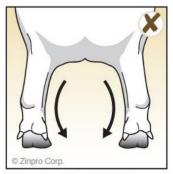
# Side view of rear leg Correct Sickle-hocked Post-legged Weak pastern

#### Replacement Gilt Pocket Guide

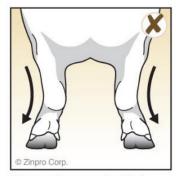
#### Foot Position (hind legs)



Toes forward, legs straight



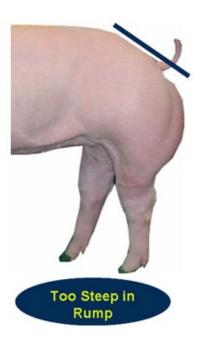
Toes in, bow-legged



Toes out, cow-hocked

Zinpro Performance Minerals

## Evaluating Structure/Soundness - Rump -









### **Foot Structure**

- Ideal Toes:
  - Big
  - Evenly sized
  - Spread apart



Even toe size and spread





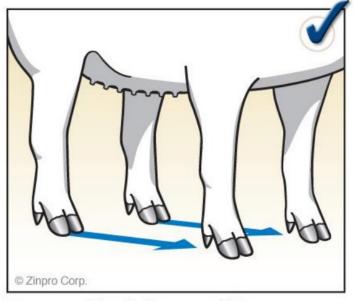
Uneven toe size and spread



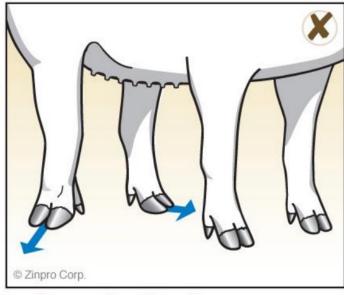
### Feet and Leg Alignment

- Want feet and legs to stay square on all four corners

### Front and Rear Feet Alignment



Front and back feet parallel



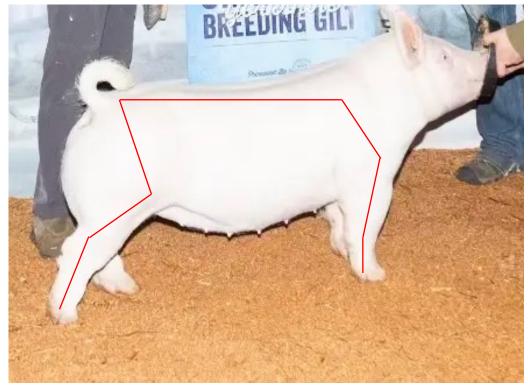
Feet do not align from front to rear

Zinpro Performance Minerals



### **Ideal Structure**





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### **Example of Poor Structured**







### **Evaluating Body**

- Components
  - Boldness of rib
    - "C"- shape
  - Softness of center body





Soft, maternal rib depth

Bold turn to rib shape



### Functional or non-functional? Why?



Google Images



## **Balance and Eye Appeal**

Proportionality, design, and attractiveness



### **Balance**

- All parts of the animal match and fit together
- Think of puzzle pieces
  - Front 1/3 matches middle 1/3 which matches rear 1/3





Google Images



### Eye Appeal

The extras that "catch" your eyes or "draw" your attention to that animal



Length and extension

Levelness of design

Attractiveness of hip and hind leg

Discuss these gilts' balance and eye

appeal ...



Google Images



### Muscle

In breeding animals, females need to be equipped with enough muscle to positively impact the next generation



### **Evaluating Muscle**

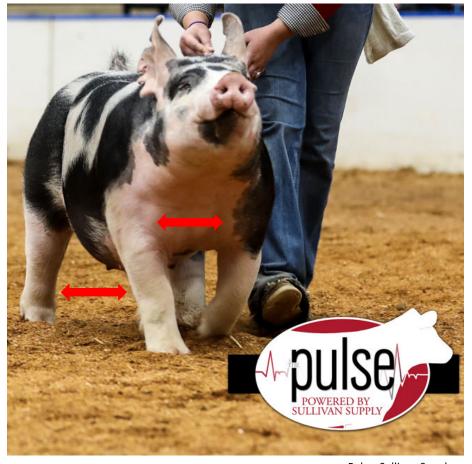
- Going way
  - Wide upper pinset and hip
  - Wide based
- Coming at you
  - Wide chested
  - Big forearm
- Up high
  - Mass and spread down top





## **Skeletal Width & Body- Foundation for Muscle**

Study hogs coming and going





Pulse, Sullivan Supply

## Fleshing Ability and Optimal Condition



Fleshing Ability and Optimal Condition

Too lean, hard doing

- Gilts need to be appropriately managed to stay in ideal condition
  - Overly fat: Reproductive, fertility and production issues
    - Prone to more structure complications
  - Too lean: Reproductive, fertility, and production issues
    - Fewer pigs born alive, increased non-productive days



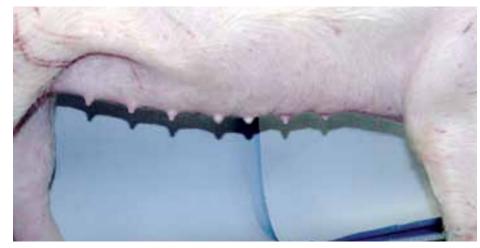
Appropriate in condition





### Reproductive Soundness-Underline

- Female must have functional teats to raise offspring
- Well-spaced
- Prominent
- Even size
- At least 6 on each side



Replacement Gilt Pocket Guide



## **Market Hog Evaluation**



## Market Hog Priorities

### 1. Carcass Value

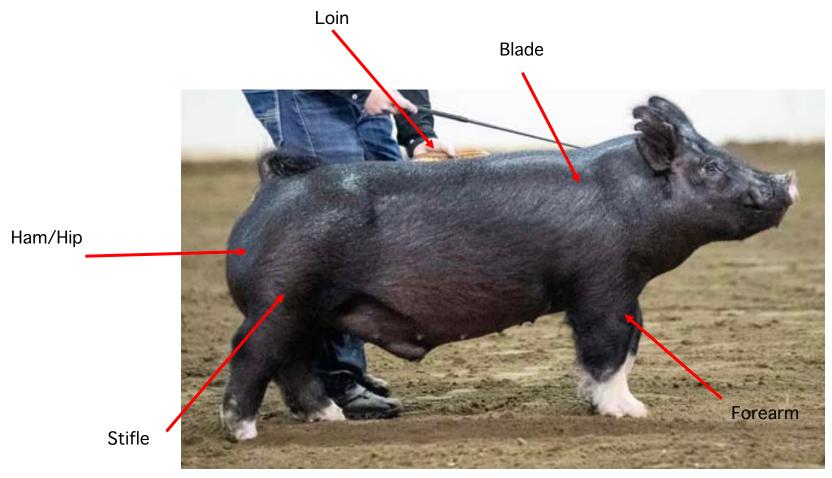
- Muscle
- Leanness

### 2. Practicality

- Structure
- Body

3. Balance and Eye Appeal

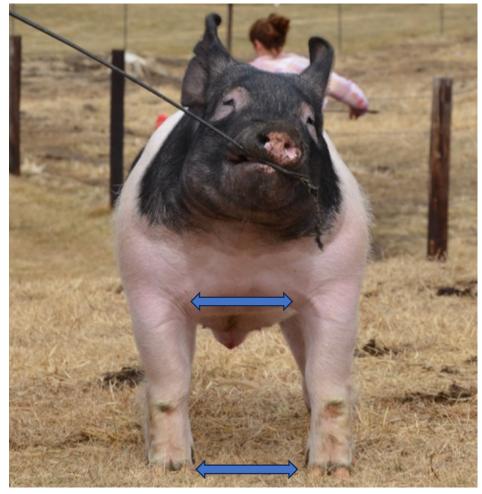
### **Evaluating Muscle: Indicators**





### **Evaluating Muscle- Front View:**

- Chest width
- Base width
- Forearm Shape



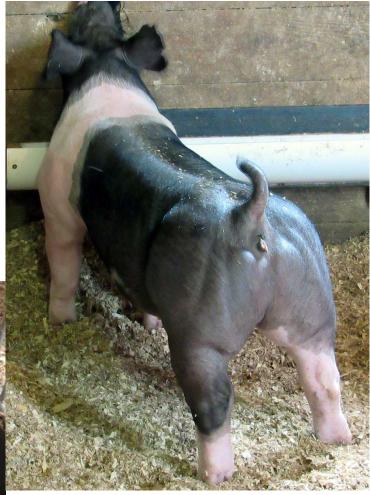


Google Images

### **Evaluating Muscle-Top View**

- Width down top
- Shape and muscle expression
  - "Groove down back"



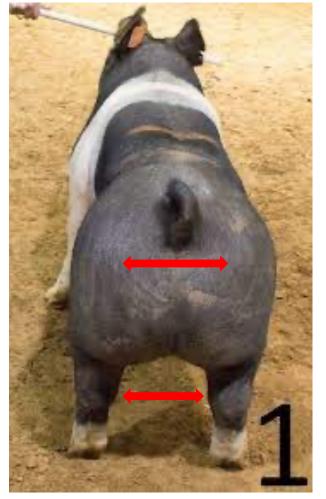


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### **Evaluating Muscle- Rear View:**

- Wide Upper Hip
- Width of base
- Shape and Expression to Ham





Google Images

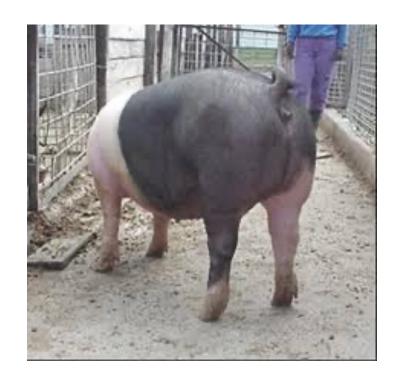
### **Evaluating Muscle- Rear View:**



Google Images



### **Narrow Light Muscled Examples**

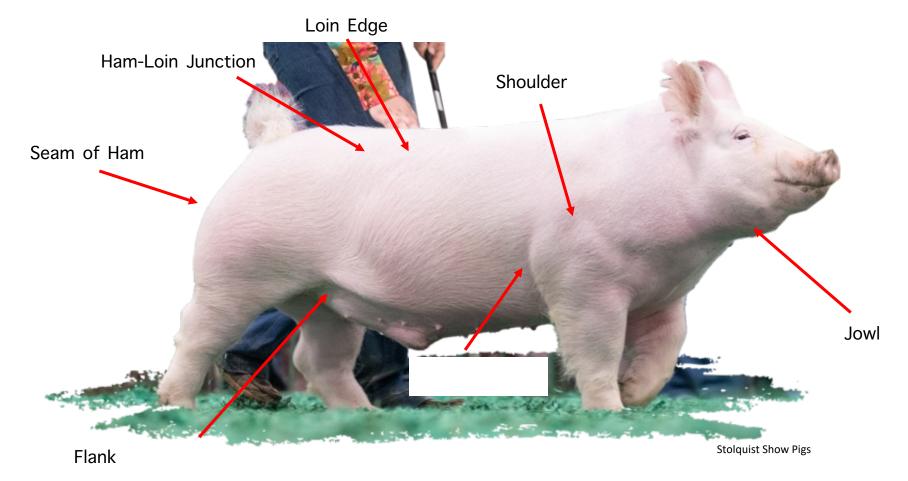






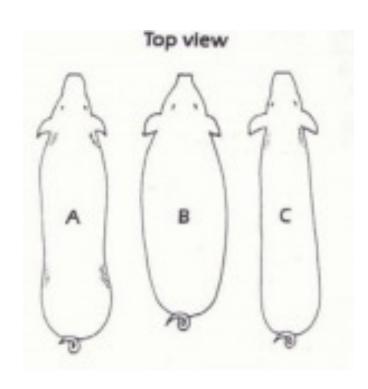


### **Evaluating Leanness: Indicators**

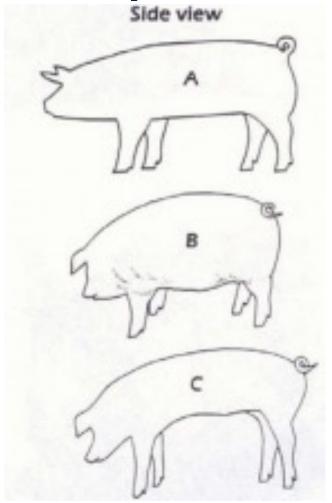




**Evaluating Carcass Value/Composition** 



- A- Ideal in Fat Cover
- **B- Excessively Fat**
- C- Too lean and light muscled





### **Examples of Poor Composition Hogs**





Google Images

- Too smooth in appearance
- Wastier jowled and lower 1/3<sup>rd</sup>
- Non-descript round muscle shape





## **Practicality**

**Structure and Body** 



### **Ideal Market Hog Structure**

- Relaxed in shoulder and knee
- Level and flexible spine
- Long and level hipped
- Appropriate set to hock
- Cushion to ankle (pastern)
- Stout legged

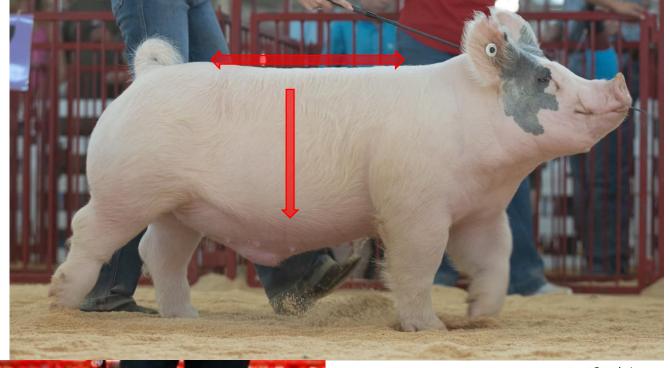


Formula of Champions



### **Body**

- Three components
  - Boldness of rib
  - Softness/depth of rib
  - Length of Body



Google Images





### **Example of Not Practical Bodied or Built...**





Google Images



## **Balance and Eye Appeal**

Considered an added bonus.... when market hogs "check the boxes" of carcass value and practicality priorities then sort on balance and eye appeal



### **Balance**

- An animal's proportionality
- Ask "Do all the parts of this animal seem make sense or match?"
- Remember puzzle pieces
  - Front Third
  - Middle Third
  - Rear Third







### **Eye Appeal**

- Up headed
- Clean jowled/jawed
- High neck attachment
- Level topped and hipped
- Clean lower 1/3
- All 1/3's match and blend together



Google Images



### Evaluate this barrows balance and eye appeal



Google Images



### Resources

- <a href="https://vetmed.iastate.edu/sites/default/files/vdpam/Extension/Dairy/Biomechanics.pdf">https://vetmed.iastate.edu/sites/default/files/vdpam/Extension/Dairy/Biomechanics.pdf</a>
- Replacement Gilt Evaluation Pocket Guide; <a href="https://porkcdn.s3.amazonaws.com/sites/all/files/documents/PorkStore/04764.pdf">https://porkcdn.s3.amazonaws.com/sites/all/files/documents/PorkStore/04764.pdf</a>
- Stohlquist Show Pigs, https://stohlquistshowpigs.com/

