

# Beef Cattle Evaluation

# Highland

Cattle



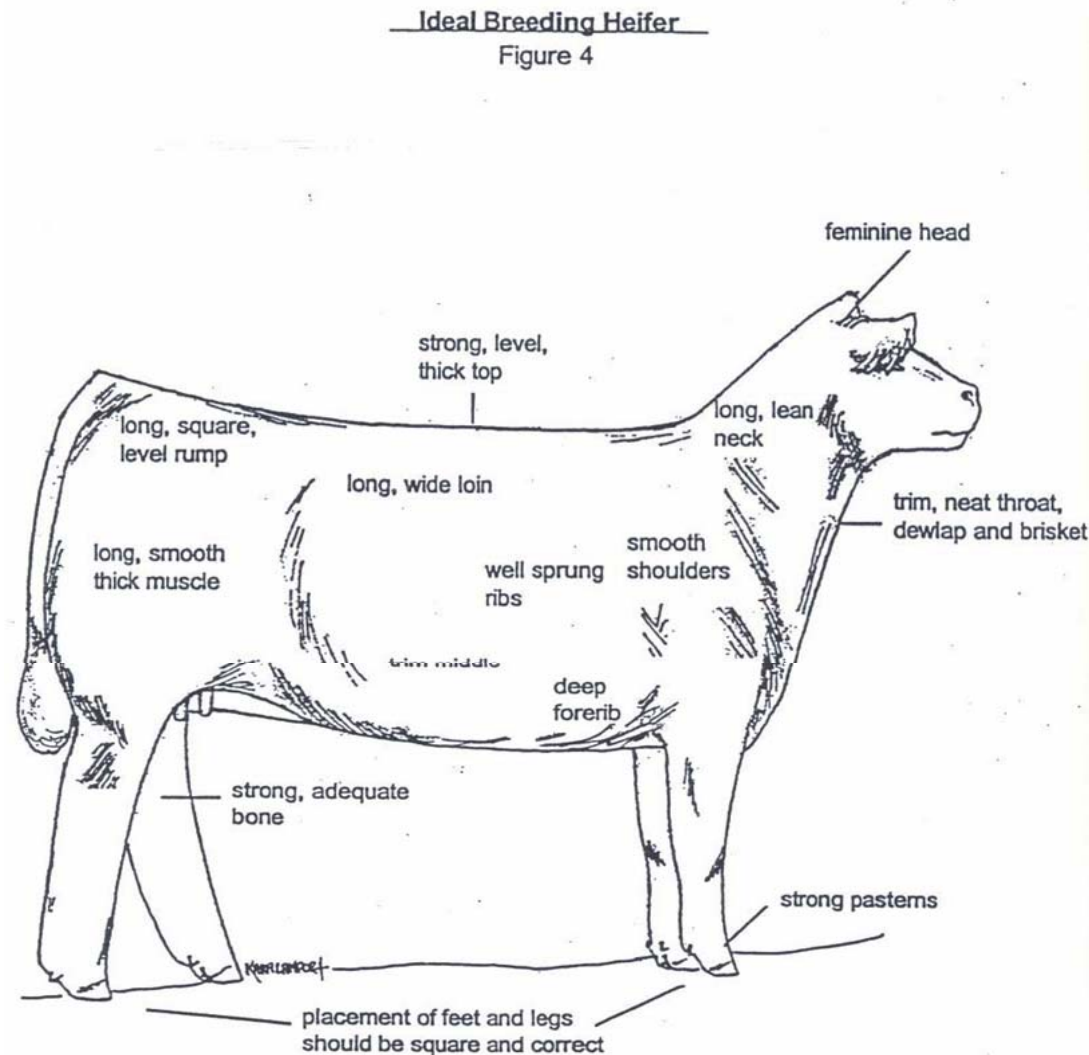
Edition

Skyler Anderson  
Skye High Farms  
Coldwater M.I.

[www.skyehighfarms.com](http://www.skyehighfarms.com)

# Priority Traits In Evaluating Breeding Cattle

- ❑ Skeletal structure
- ❑ Volume
- ❑ Muscle
- ❑ Balance
- ❑ Growth
- ❑ Sexual Characteristics



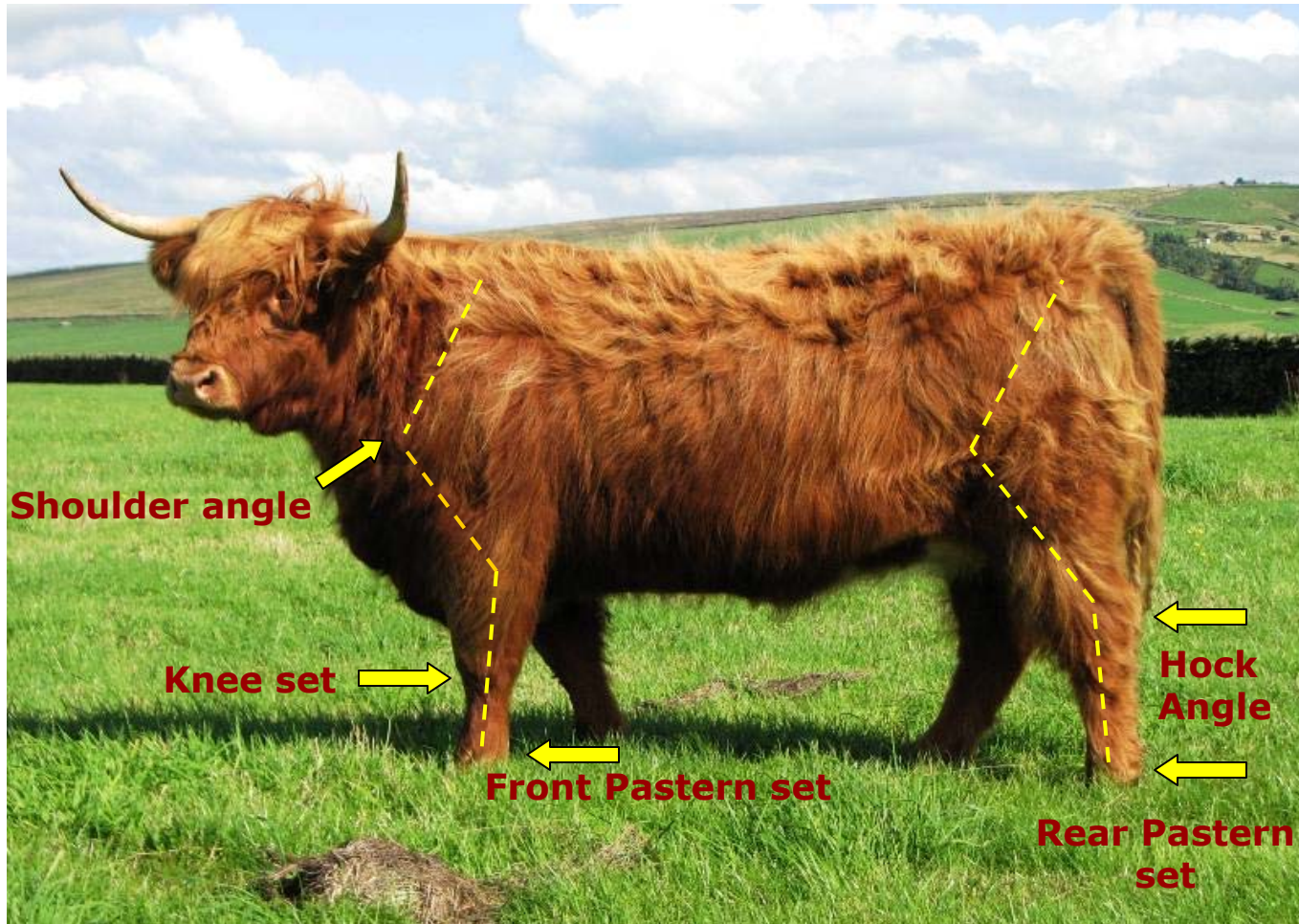
# Skeletal Structure

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- **Correct joint angles**
  - Shoulder, knee, hock and pastern
- **Strong topline**
- **Level rump structure**
  - Hooks to pins
- **Adequate substance of bone** - big, thick, rugged, legs. Animals legs should not appear fine or deer like
- **Hoof size and shape** – Big footed, uniform shape and deep heel.

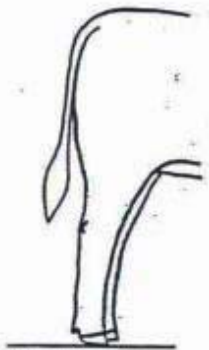
# Skeletal Structure

Correct joint angles – Shoulder, knee, hock, and pastern



# Skeletal Structural (hind legs)

Many of the more commercialized breeds present in the U. S. and particularly their respective show cattle representatives have been bred overly to straight (post legged). Highland Cattle



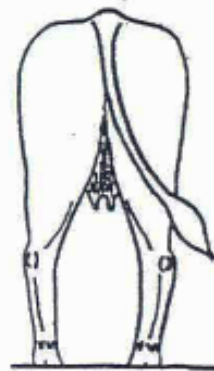
**Extremely straight  
(Post legged)**



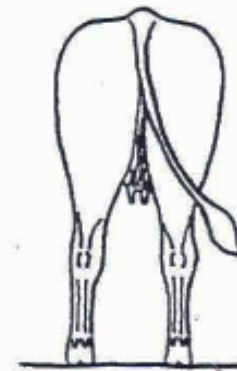
**Correct**



**Extremely angular  
(sickle hocked)**



**Bow legged**



**Correct**



**Cow hocked**

# Skeletal Structure (front legs)



Bowlegged



Knocked-kneed



Correct



Splayfooted  
(toed out)



Pigeon-toed  
(toed in)

**Splay footed**



Correct



Over at the knee  
(buck kneed)



Back at the knee  
(calf kneed)



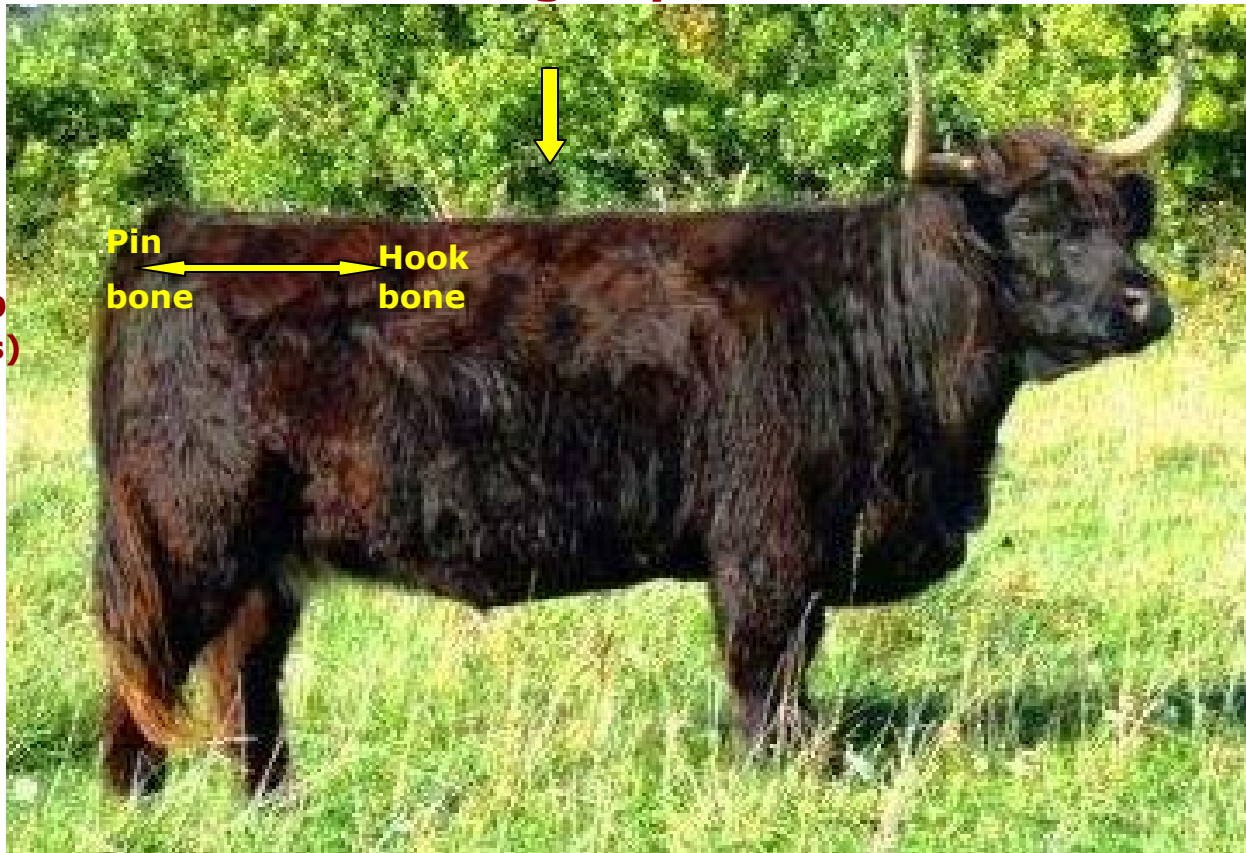
Weak pasterns

# Skeletal Structure

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**Strong Top**

**Level rump  
(Hooks to Pins)**



# Volume and Capacity

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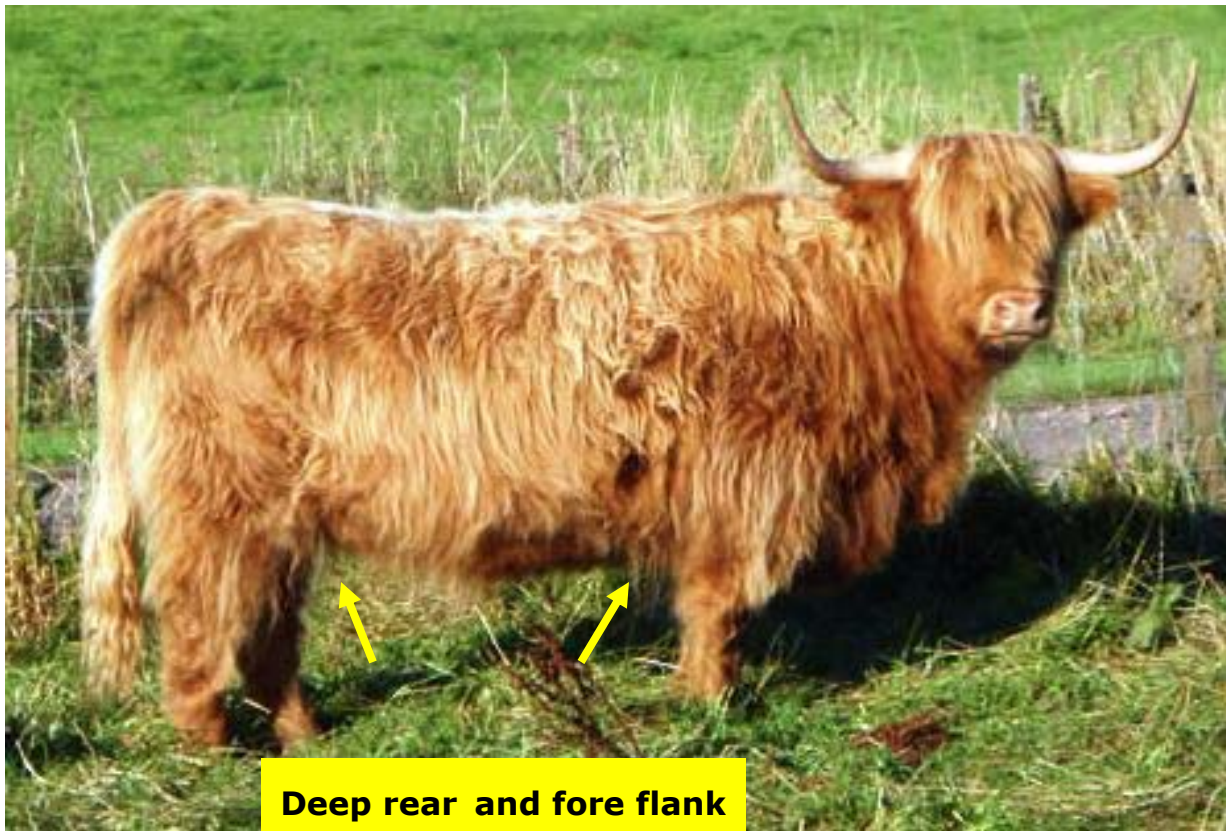
- ❑ **Most critical in beef production.** Highly indicative of potential yield grade i.e. – amount saleable beef cuts in a carcass
- ❑ **Deep, bold sprung, rib cage.** (picture a big bulging barrel)
- ❑ **Wide chest, hip, and base**

On top of being structurally, or skeletally sound the ideal Highland as a beef breed must exhibit volume, capacity and dimension. Asses an animals volume from a profile (broadside) stance looking for depth of rib. From the back examine the width of the animals stance, rib, and top. Three dimensional, easy keeping cattle equal beef product, and beef cow production.



# Volume and Capacity

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**Deep rear and fore flank**

# Balance

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# Muscling

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- ❑ **Fleshing Ability-** The ability for a mature female to maintain body condition while in lactation. “Easy keeping” V.S. “Harder doing” type cattle.
- ❑ Heavy muscled cattle are preferred if muscle pattern is long and smooth.
- ❑ **Overly round, tight muscle can inhibit movement**  
–Although this muscling pattern can occasionally be found in Highland cattle it is typically associated with Continental type breeds (Charolais, Limousin, ect.) of cattle that, as a result often exhibit higher instances of calving difficulties and lower rates of Intra-muscular fat deposits (marbling), when compared to British breed cattle (Highlands).

# Growth & Performance

( A commercial standpoint)

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- ❑ The ability to gain weight and mature rapidly within a range of moderate frames scores
- ❑ Most critical when evaluating small (< 6 frame score - typical of Highlands), and extremely large framed (frame score > 8) cattle.
- ❑ -Not to be confused with mature size. Early growth, early maturing, high efficiency, high performing cattle capable of producing a high yield (high muscle/retail product) grade, high quality grade (finished, well marbled) carcass in a timely manner are profitable cattle.

# Sexual Characteristics (Male)

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## □ Masculinity

- Bulls should be masculine about their head, neck, and shoulder, but with smooth transitions between the three

## □ Testicle size

- Directly related to fertility

- Bulls with well developed (size & shape) testicles have improved semen production

- A larger scrotal size relates to a bulls daughters reaching puberty at an earlier age

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# Sexual Characteristics (female)

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## □ Femininity

- Females should be refined through their shoulder, neck, and head with smooth transitions between the three.
- Vulvas need to be developed. (overly small vulvas similar proportionally to that of a pig are indicative of infertility)
- correct udder structure, and correct teat placement, size and shape.

# Other methods of selection

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- Performance Testing
- Progeny Testing
- Genetic Prediction
  - Progeny and grand progeny
  - Pedigree, particularly sire and dam
  - Individual's own performance

# Conclusion

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- ❑ Why is this important to me the person who just want a hairy cow?
- ❑ Our responsibility as the stewards of a rare breed of cattle on the edge of....



# Tips

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- **Stand back!** (20-30 ft.) while visually assessing an animal