

Oklahoma 4-H STEM Camp

Equine and Equations



Equine Facts

- Equine is the scientific word for horse derived from the Latin genus Equus
- There are over 350 different breeds of ponies and horses.
- There are 5 different types of horses: draft, gaited, light, pony and warm blood.

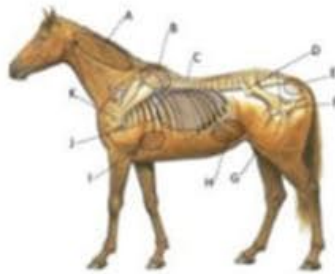


What is BCS?

- BCS stands for Body Condition Score.
- BCS is based on the degree of fat on the body and a good indicator of the horse's health.
- BCS is subject to change with the seasons and influenced by stress and food availability.
- There are 9 total BCS scores. 1 being extremely poor and 9 being extremely fat.



BODY CONDITION SCORING CHART



Areas of Emphasis for Body Condition Scoring

- A. Thickening of the neck
- B. Fat covering the withers
- C. Fat deposits along backbone
- D. Tuber coxae
- E. Fat deposits around tailhead
- F. Tuber ischii
- G. Fat deposits on inner thigh
- H. Fat deposits on flanks
- I. Fat deposit behind shoulder
- J. Fat covering ribs
- K. Shoulder blends into neck

1. Poor

Animal extremely emaciated; spinous processes, ribs, tailhead, tuber coxae, and tuber ischii projecting prominently; bone structure of withers, shoulders, and neck easily noticeable; no fatty tissue can be felt.



2. Very Thin

Animal emaciated; slight fat covering over base of spinous processes; transverse processes of the lumbar vertebrae feel rounded; spinous processes, ribs, tailhead, tuber coxae, and tuber ischii prominent; withers, shoulders, and neck structure faintly discernable.



3. Thin

Fat buildup about halfway on the spinous processes; transverse processes cannot be felt; slight fat cover over ribs; spinous processes and ribs easily discernable; tailhead prominent, but individual vertebrae cannot be identified visually; tuber coxae appear rounded but easily discernable; tuber ischii not distinguishable; withers, shoulders and neck accentuated.



4. Moderately Thin

Slight ridge along back; faint outline of ribs discernable; tailhead prominence depends on conformation, fat can be felt around it; tuber coxae not discernable; withers, shoulders, and neck not obviously thin.



5. Moderate

Back is flat (no crease or ridge); ribs not visually distinguishable but easily felt; fat around tail head beginning to feel spongy; wither appear rounded over spinous processes; shoulders and neck blend smoothly into body.



6. Moderately Fleshy

May have slight crease down back; fat over ribs fleshy/spongy; fat around tailhead soft; fat beginning to be deposited along sides of withers, behind shoulders and along sides of neck.



7. Fleshy

May have crease down back; individual ribs can be felt, but noticeable filling between ribs with fat; fat around tailhead soft; fat deposited along withers, behind shoulders, and along neck.



8. Fat

Crease down back; difficult to feel ribs; fat around tailhead very soft; area along withers filled with fat; area behind shoulder filled with fat; noticeable thickening of neck; fat deposited along inner thighs.

9. Extremely Fat

Obvious crease down the back; patchy, bulging fat around tailhead, along

BCS 1

- Very thin
- Rounded vertebrae
- Visible bone structure
- Extremely emaciated
- No fatty tissue felt



BCS 9

- Extremely fat
- crease down back
- Patchy fat appearing
- Can't feel ribs at all
- Thickening of the neck



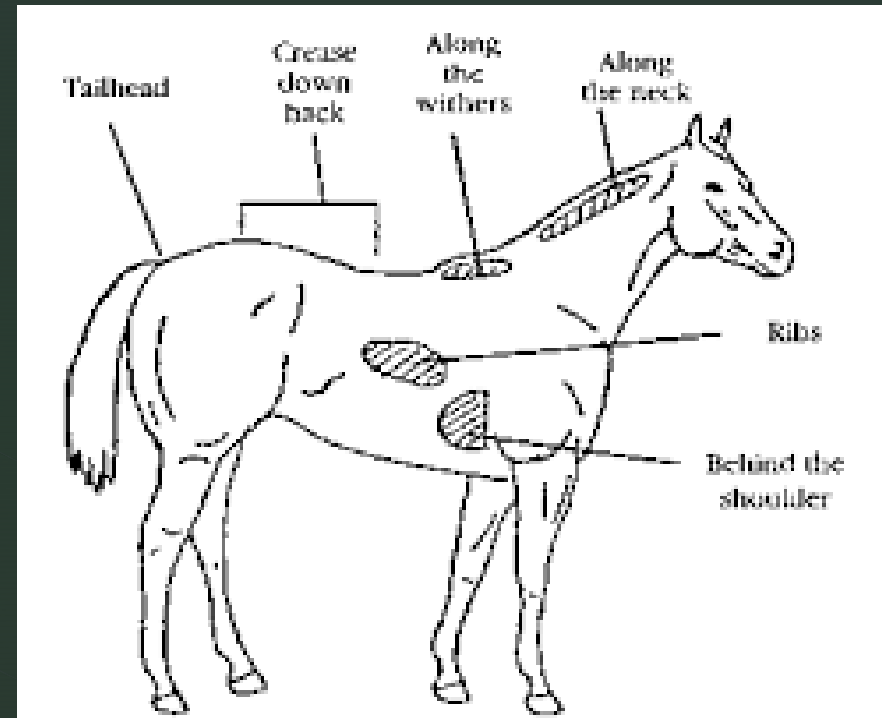
BCS 5

- Back is flat
- Ribs are not visible but can be felt
- Shoulders and neck blend smoothly into body



Equine Equations

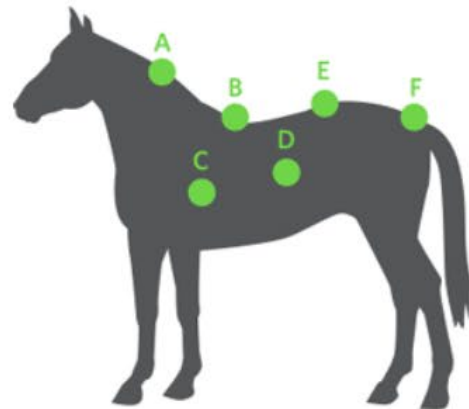
- We can mathematically determine BCS with a simple equation.
- There are 6 different areas you have to assign scores to: neck, shoulder, ribs, tailhead, withers, and loin.



Let's try it!!

How to Score Your Horse

Follow these 3 simple steps. Using the Body Condition Score Chart give a score of 1 to 9 to each of the 6 points of reference. Next add these 6 scores together. Then divide by 6. This is your horse's Body Condition Score. [See Equine Body Conditions](#)



- A. NECK
- B. WITHERS
- C. SHOULDER
- D. RIBS
- E. LOIN
- F. TAILHEAD

Example:

My Horse	Neck	Withers	Shoulder	Ribs	Loin	TailHead
Score	4	5	7	6	4	5

$$31 \div 6 = \text{BCS of } 5$$



What is the BCS score of this horse?



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This horse would
receive a
BCS 1



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What is the BCS score of this horse?



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This horse would
receive a
BCS 5



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This horse would
receive a
BCS 9



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For more information check out this link!

<https://www.pbs.org/wnet/nature/group/mammals/horse/>

