

## Using Body Condition Scores in Beef Cattle

### 2010 TSCRA School for Successful Ranching

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## What Are Body Condition Scores and How Can You Use Them?

- Body condition scores are a subjective way to evaluate fat (condition) level in cattle
- They range from 1 (Very Thin) to 9 (Very Fat)
- Body condition, as an indicator of fat and nutritional level, are good indicators of a cow's reproductive potential
- Scoring should be done at least 60 days before breeding season begins so corrective supplemental feeding can begin if needed



## Body Condition Scoring

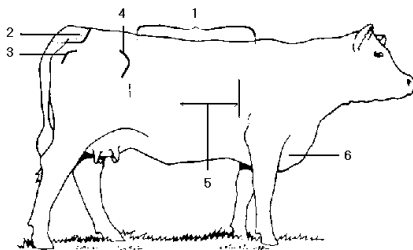
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|---|--|
| <p>1 – Severely emaciated - no fat, tail head and ribs prominently visible</p> <p>2 – Emaciated - little visible muscle tissue, tail head and ribs less visible</p> <p>3 – Very thin - no fat over ribs or brisket, backbone still easily visible</p> <p>4 – Borderline - individual ribs noticeable, overall fat lacking, increased musculature over shoulders and hindquarters, hips and backbone slightly rounded</p> <p>5 – Moderate - increased fat cover over ribs, only 12<sup>th</sup> and 13<sup>th</sup> ribs visible, tail head full but not rounded</p> | <p>6 – Good - back, ribs and tail head slightly rounded and spongy when palpated, fat deposition in brisket</p> <p>7 – Fat - cow appears fleshy and carries fat on back, tail head and brisket, ribs are not visible, some udder fat</p> <p>8 – Very fat – squared appearance due to excess fat over back, tail head and hindquarters, fat deposition in brisket and along ribs and in udder</p> <p>9 – Obese – fatter than BCS 8 with more fat in udder</p> |
|---|--|

## Relationship between BCS and Fat

BCS	Empty Body Fat (%)	Total Body Fat (%)	Fat Thickness (in)
1	3.8	0.7	0.0
2	7.5	5.0	0.004
3	11.3	9.3	0.005
4	15.1	13.7	0.11
5	18.9	18.0	0.19
6	22.6	22.3	0.29
7	26.4	26.7	0.41
8	30.2	31.0	0.54
9	33.9	35.3	0.68

NRC 1996 and Hardin 1990

## Areas to Evaluate Body Condition



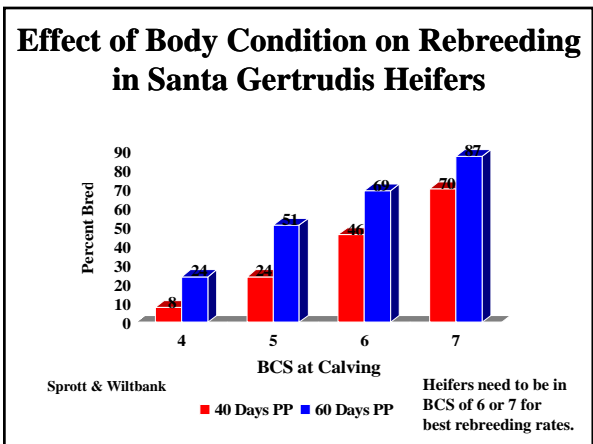
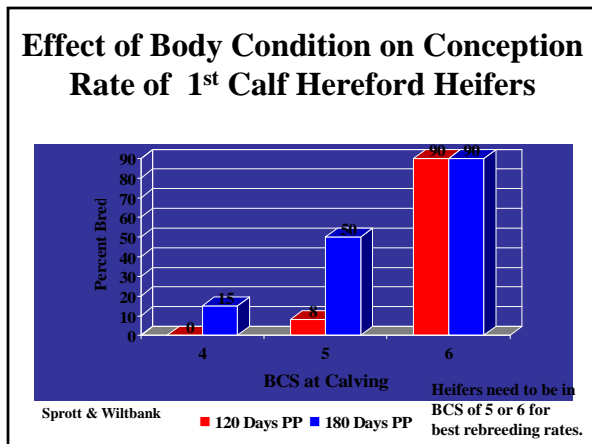
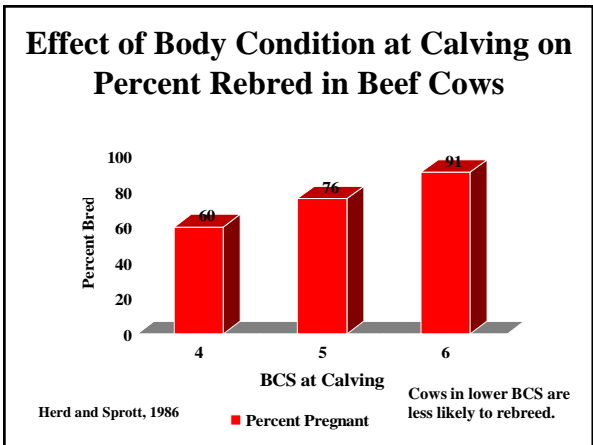
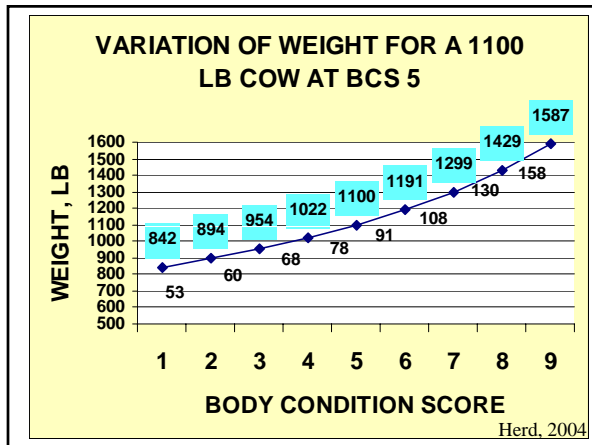
1. BACK      3. PINS      5. RIBS  
2. TAIL HEAD    4. HOOKS    6. BRISKET

## Reference Points for BCS

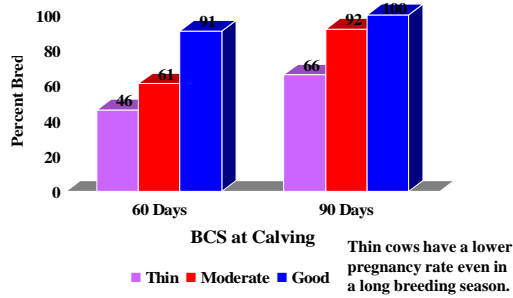
BCS	1	2	3	4	5	6	7	8	9
Weak	Yes	No	No	No	No	No	No	No	No
Muscle atrophy	Yes	Yes	Slight	No	No	No	No	No	No
Spine visible	Yes	Yes	Yes	Slight	No	No	No	No	No
Ribs visible	All	All	All	1-2	0	0	0	0	0
Fat in brisket	No	No	No	No	No	Some	Full	Full	Extreme
Hip and pin bones visible	Yes	Yes	Yes	Yes	Yes	Slight	No	No	No
Fat in udder and on tail head	No	No	No	No	No	No	Slight	Yes	Extreme

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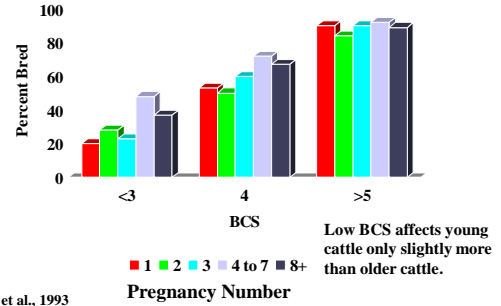
- ### Factors to Consider When Assigning a Body Condition Score
- Age (older cattle carry less fat over their backs)
  - Breed (Bos indicus and Dairy cattle carry external and more internal fat than Bos taurus)
  - Pregnancy (late pregnancies appear in better BCS)
  - Recently calved cows (appear in lower BCS)
  - Hair (hides lack of condition and muscle)
  - Frame size (small and moderate framed cattle tend to be scored higher than large frame cows)
  - Gut fill (over emphasis on fill increases BCS)
  - Mud (hides lack of condition and muscle)



### Body Condition at Calving and Percent Showing Estrus at 60 and 90 Days

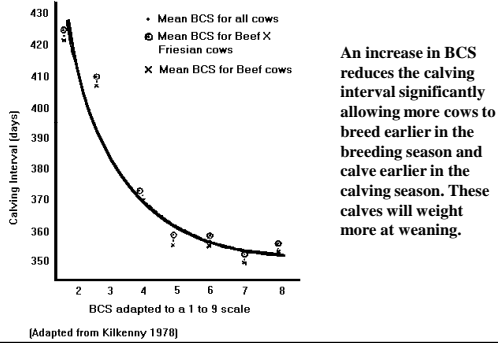


### Relationship of Number of Pregnancies and BCS to Pregnancy Rate



Rae et al., 1993

### Effect of Body Condition Score (BCS) on Calving Interval



### BCS 2



### BCS 3



### BCS 3



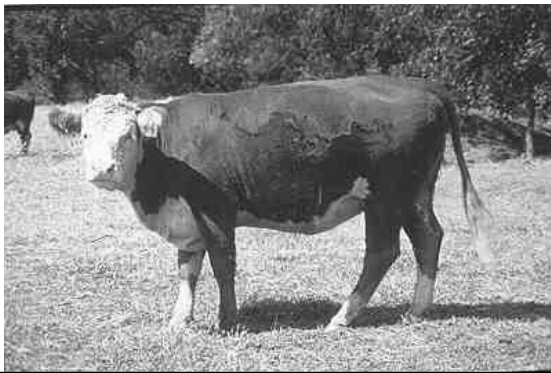
**BCS 4**



**BCS 5**



**BCS 6**



**BCS 7**



**BCS 8**



**BCS 9**

