What is BCS

- Body condition simply refers to the degree of fleshiness or fatness of a cow
- Fatness is measured by a simple numeric scoring system of 1 to 9
- 1 is extremely thin, 9 is extremely fat, 5 is average or moderate
- 80-100 lbs body weight equals one condition score
How to BCS

- Visual assessment of appearance
  - Angular and sharp vs smooth and blocky
- Specifically look for areas of fat deposition and muscle deterioration
  - back and spine
  - ribs
  - brisket
  - hooks and pins
  - tail head

Account for hair coat, fill, pregnancy status, age
1 EMACIATED - Cow is extremely emaciated with no palpable fat detectable over spinous processes, transverse processes, hip bone or ribs. Tail-head and ribs project quite prominently.

2 POOR - Cow still appears somewhat emaciated but tail-head and ribs less prominent. Individual spinous processes are still rather sharp to the touch but some tissue cover exists along the spine.

3 THIN - Ribs are still individually identifiable but not quite as sharp to the touch. There is obvious palpable fat along spine and over tail-head with some tissue cover over dorsal portion of ribs.
BCS 3
4 BORDERLINE - Individual ribs are no longer visually obvious. The spinous processes can be identified individually on palpation but feel rounded rather than sharp. Some fat cover over ribs, transverse processes and hip.

5 MODERATE - Cow has generally good overall appearance. Upon palpation, fat cover over ribs feels spongy and areas on either side of tail-head now have palpable fat cover.

6 HIGH MODERATE - Firm pressure now needs to be applied to feel spinous processes. A high degree of fat is palpable over ribs and around tail-head.
7 GOOD - Cow appears fleshy and obviously carries considerable fat. Very spongy fat cover over ribs and around tail-head. In fact, "rounds" or "pones" beginning to be obvious. Some fat around vulva and in crotch.

8 FAT - Cow very fleshy and over-conditioned. Spinous processes almost impossible to palpate. Cow has large fat deposits over ribs, around tail-head and below vulva. "Rounds" or "pones" are obvious.

9 EXTREMELY FAT - Cow obviously extremely wasty and patchy and looks blocky. Tail-head and hips buried in fatty tissue and "rounds' or "pones" of fat are protruding. Bone structure no longer visible and barely palpable. Animal's mobility may even be impaired by large fatty
BCS 6 and 7
Why BCS

- Cow condition reflects the recent and current nutritional status
- Nutritional status has a relationship to health and production and future requirements
  - Calf vigor and survival
  - Cow rebreeding
  - Milk yield and calf weaning weight
  - Longevity and salvage value
- Fine line in managing cow nutrition to control feed costs and optimize health and productivity
- Fine tunes cow weight data in genetic evaluations of mature size and cow productivity
Thin cows can be costing you

- Why are they thin
  - Health problem
  - Competition
  - Too little feed
  - Too poor of feed

- Typical weight loss
  - overstocking
  - Late weaning
  - Poor winter feed
  - High milking
BCS at calving critical to rebreeding

Figure 2. Effect of Body Condition Score at Calving on Subsequent Pregnancy Rate in First Calf Heifers

Adapted from Spitzer et al., 1995
Effects on calf born to thin dams

- Less immunity from lower amounts and concentration colostrum
- Longer duration labor and birthing stress
- Less internal fat reserves and more prone to chilling
- More susceptible to scours and other health problems
- Greater death loss
- Reduced weaning weight from lower milk production
Maintenance goes up in the cold

- 8 Months Bred – 0 degrees F
  - 1200 lb BCS 4 - 17.2 lbs TDN
  - 1300 lb BCS 6 - 16.6 lbs TDN
## Effects on longevity and replacement

<table>
<thead>
<tr>
<th>Weaning BCS</th>
<th>Average Cow Age</th>
<th>Replacement Rate</th>
<th>Probability of being in herd at age 11</th>
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<tbody>
<tr>
<td>3</td>
<td>4.52</td>
<td>28.0%</td>
<td>4%</td>
</tr>
<tr>
<td>4</td>
<td>5.05</td>
<td>19.3%</td>
<td>15%</td>
</tr>
<tr>
<td>5</td>
<td>5.82</td>
<td>13.5%</td>
<td>49%</td>
</tr>
<tr>
<td>6</td>
<td>6.02</td>
<td>12.5%</td>
<td>65%</td>
</tr>
</tbody>
</table>
You can’t make up for lost ground

- Very difficult and expensive to recondition (high gain) cows that are thin in late gestation or lactating.

- Flushing cows on high energy rations in lactation prior to breeding is helpful but seldom can you achieve the same results as for cows calved in good condition.
## BCS 4  1300 lb cow  to gain 1 lb/day

<table>
<thead>
<tr>
<th>Oct 30 degrees</th>
<th>Feb 0 degrees</th>
<th>Apr 50 degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gest – 4 mon</td>
<td>Gest – 8 mon</td>
<td>Lact – 1 mon</td>
</tr>
<tr>
<td>16.1 TDN</td>
<td>18.6 TDN</td>
<td>21.2 TDN</td>
</tr>
<tr>
<td>55%</td>
<td>60%</td>
<td>65%</td>
</tr>
<tr>
<td>$35/ton</td>
<td>$45/ton</td>
<td>$65/ton</td>
</tr>
<tr>
<td>33 lbs</td>
<td>34.5 lbs</td>
<td>37 lbs</td>
</tr>
<tr>
<td>$.57</td>
<td>$.79</td>
<td>$1.12</td>
</tr>
</tbody>
</table>
Not Fat and Not Thin
BCS 5 – moderate flesh

- BCS 5
  - The minimum target for mature cows in late gestation and at calving
  - Not much reserve for periods of very cold
  - Need to meet post calving/lactation needs to maintain calving interval
Smooth BCS 6

- Target for bred heifers and young cows
Generally good fertility of cows > BCS 5
These are fleshy, fat cows BCS 7+

- If extreme they can cost you too
  - Higher feed expense
  - Greater calving difficulty
  - Lower conception
When to BCS

- Cow weight and condition will fluctuate through year and production cycle
- It is not feasible to balance energy requirement daily, weight gain and loose often the most efficient
- Critical periods and condition targets
  - Prior to onset of winter extremes
  - Late gestation and calving
  - Breeding
- Continually watch and appraise cows to change and status
- Most critical for young and developing females
Nutritional Needs
Cow Weight Change Pattern
What do you think?

- What is her BCS?
- Is it OK for fall?
- What would be your feeding plan?
What do you think?

- What is her BCS?
- What would be your feeding plan?
Thanks, Questions or Comments?