BASICS OF BODY CONDITION SCORE

OSU Extension
Today’s Mission

- Understand how implementing Body Condition Score (BCS) as a management tool can increase profit potential
- Know the visual indicators of Body Condition Scoring
- Understand management strategies for increasing BCS
- Comprehend the importance of maintaining body condition of cow herd
Benefits of Implementing BCS

**Ranchers can....**

- Achieve maximum cow reproductive performance while keeping feed supplementation costs low
- Have 91% of cows conceive within 82 days of calving
- Increase productivity of cow herd
- Reduce number of open cows in the herd
- Increase calf vigor at birth
- Positively impact the economics of the operation
Body Condition Score (BCS)

- Body condition scores are numbers (1-9) used to estimate energy reserves in the form of fat and muscle of beef cows.
- Monitoring body condition using the BCS system is an important managerial tool for assessing production efficiency.
BCS – Why Use It?

- Research indicates a cow’s reproductive performance is closely associated with her body energy reserves
  - Optimize health and fertility and minimize calving difficulties
  - Thin cows produce less colostrum and weak calves
- A useful tool for distinguishing differences in nutritional needs of beef cows in the herd
# Body Condition Score

**Problems associated with "thin" or "fat" body condition**

<table>
<thead>
<tr>
<th>Thin Condition-BCS 1-4</th>
<th>Fat Condition-BCS 8-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Failure to cycle</td>
<td>1. Costly to maintain</td>
</tr>
<tr>
<td>2. Failure to conceive</td>
<td>2. Increased dystocia</td>
</tr>
<tr>
<td>3. Increased calving interval</td>
<td>3. Impaired mobility</td>
</tr>
<tr>
<td>4. Increased days to estrus</td>
<td>4. Failure to cycle</td>
</tr>
<tr>
<td>5. Decreased calf vigor</td>
<td>5. Failure to conceive</td>
</tr>
</tbody>
</table>

*Table derived from West Virginia Extension publication #400-791*
Body Condition Score (BCS)

- BCS scores animals on a basis of 1-9
- Ideal live weight varies due to frame size, breed of cow, etc..
- Whereas ideal body condition (BCS 5-6) is the same for all cows.

~https://onpasture.com/2014/03/24/the-cost-of-thin-cows-2/
Body Condition Scoring

- There are six critical areas for evaluating body condition
- Back, tail head, pins, hooks, ribs, and brisket of beef cattle
Body Condition Score (BCS)

Specifically look to see how many ribs (from the last half of the rib cage) are evident to visual appraisal. If more than two ribs are easily discernible, then expect the cow to score lower than five. Also look closely at the spinous processes (vertebrae along the edge of the loin in front of the hook bones). If the outline of the vertebrae is visually apparent, expect the cow to receive a body condition score of four or lower.

~Oklahoma Cooperative Extension
Body Condition Score

BCS 1
Body Condition Score

BCS 2
Body Condition Score

BCS 3
Body Condition Score

BCS 4
BCS 5-6 is Optimum

BCS 5

BCS 6
Body Condition Score

BCS 7
Body Condition Score

BCS 8
I am not fat, just fluffy

Body Condition Score

BCS 9
BCS and Profitability

- For a cow to maintain a 365-day calving interval, she must rebreed by 83 days after calving (282 day gestation + 83 day postpartum interval = 365 days)
- Must breed back
- Open cows = lost profits
Relationship Between BCS and the Average Interval From Calving to First Heat After Calving

<table>
<thead>
<tr>
<th>Body Condition Score</th>
<th>Average Postpartum Interval In days</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>89</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>5</td>
<td>59</td>
</tr>
<tr>
<td>6</td>
<td>52</td>
</tr>
<tr>
<td>7</td>
<td>31</td>
</tr>
</tbody>
</table>

*Table from University of Nebraska Extension publication #EC281*
BCS Evaluation Tips

Factors to consider when visually appraising cows

- Long hair coats may impact your appraisal so check them when hair is wet and matted down
- Age of cow
- Rumen fill
- Weather conditions
- Time since last drink of water
Tips For BCS Scoring

- Cows in BCS 1, 2 and 3 have to utilize fat stores and muscle tissue to meet their maintenance requirements as nutrition is lacking
- Muscle atrophy is not evident in cows with a BCS of 5 or greater
Body Condition Score (BCS)

- Evaluate cattle and score BCS 3-6 times per year.
- Evaluate BCS is at weaning in order to determine feeding requirements necessary for cows to reach optimum BCS score of 5-6.
- Score cows 60-90 days before calving in order to adjust feeding to reach BCS of 5-6.
  - Many producers waste profits by over-feeding cows in adequate condition when only part of the herd needs extra energy and supplementation.
- Score cows at calving time in order to adjust nutrition and reach 5-6 score at breeding time.
  - Cautionary tale: It may be difficult to increase weight of cow during lactation as lactation utilizes most of the energy the cow consumes.
To move a cow one BCS score equals about 75-80 lbs. of live weight in cows

A BCS score 4 cow that weighs 1,100 lbs. would need to weigh 1,175 lbs. to achieve BCS score of 5
- At two pounds per day it takes 37.5 days
- At 1.5 pounds per day it takes 50 days
Facts Slide

- An additional 100 lbs. is typically gained during the last trimester of gestation for fetal growth & uterine development
- The 90-110 days before calving is the critical time when producer has the ability to put condition back on a “thin” cow or restrict feed intake of a “fat” cow
- Cows that calve in thin body condition may give birth to calves that are less vigorous and are slower to stand to nurse for the first time
- First calf heifers (two years of age) need to be a BCS of 6 in order to maintain their breeding condition until the start of the breeding season as they are still growing
Recommendations 90 To 100 Days Pre-partum To Achieve A BCS Of 5 To 7 By Calving

<table>
<thead>
<tr>
<th>BCS Score</th>
<th>Condition at Calving</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>Need to gain over 350 lbs. Questionable Economics</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Need to gain 300-350 lbs. Questionable Economics</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Needs to gain 200-300 lbs. $$$$$</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>Needs to gain 150-200 lbs. $$ $$</td>
</tr>
<tr>
<td>5</td>
<td>5-7</td>
<td>Needs to gain weight of fetus &amp; placenta = 100 lbs.</td>
</tr>
<tr>
<td>6</td>
<td>5-7</td>
<td>Needs to gain weight of fetus &amp; assorted tissues=100 lbs.</td>
</tr>
<tr>
<td>7</td>
<td>5-7</td>
<td>No weight gain needed</td>
</tr>
<tr>
<td>8</td>
<td>5-7</td>
<td>Can probably lose 50-100 lbs.</td>
</tr>
<tr>
<td>9</td>
<td>5-7</td>
<td>Can probably lose 100-200 lbs. Call Jenny Craig</td>
</tr>
</tbody>
</table>

Table derived from West Virginia Extension publication #400-791
Strategies for Raising BCS Score in Cow Herd

- Don’t supplement the entire herd if only half of them need a higher plane of nutrition
- Separate herd into two herds according to BCS score
- This should be done at weaning to allow 2-5 months of feeding prior to calving
### Body Condition Score

<table>
<thead>
<tr>
<th>BCS</th>
<th>% Body Fat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>2</td>
<td>7.5</td>
</tr>
<tr>
<td>3</td>
<td>11.3</td>
</tr>
<tr>
<td>4</td>
<td>15.1</td>
</tr>
<tr>
<td>5</td>
<td>18.9</td>
</tr>
<tr>
<td>6</td>
<td>22.6</td>
</tr>
<tr>
<td>7</td>
<td>26.4</td>
</tr>
<tr>
<td>8</td>
<td>30.2</td>
</tr>
<tr>
<td>9</td>
<td>33.9</td>
</tr>
</tbody>
</table>

National Academy Press, Washington, DC.