Weaning Age and Management Systems for Fall Born Beef Calves

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Twenty-eight registered Angus and Hereford cows calved in September, 1970. The cows calved on pasture and remained on pasture until late November. From November 10 to December 28 the cows were bred for 1971 and started on a self-fed diet. The remaining 14, or one-half of the calves, were allowed to continue nursing the cows, but the calves also had access to a calf creep with the same diet used for the weaned calves. At the start of the experiment the calves were randomly divided by sex, breed and age. At this time, December 30, 1970, the average age of all calves was 106 days and they averaged 218 lb. in weight.

Both management systems produced 205-day-old calves that were in thrifty condition and of desirable weights. The rate of gain for each group was very similar in that the calves left nursing their mothers gained 2.22 lb. per head daily and the earlier weaned calves gained 2.24 lb. per head daily. One of the objectives of this trial was to obtain data which would indicate if a fall born calf should be weaned early and depend on gains from a creep feed or if it is desirable to feed a nursing cow the extra required amount to provide milk for a calf. This experiment showed that the total feed cost was $42.68 for a cow and her calf which had been weaned early. Total feed cost to winter a cow and her nursing calf was $44.31. The relatively small difference in winter feed cost was $163 less for a cow and her calf which was weaned early as compared to a cow with a nursing calf.

The diet used and self-fed to all calves of both groups was as follows:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cracked shelled corn</td>
<td>700</td>
</tr>
<tr>
<td>Rolled oats</td>
<td>450</td>
</tr>
<tr>
<td>Wheat bran</td>
<td>200</td>
</tr>
<tr>
<td>32% protein pellets</td>
<td>250</td>
</tr>
<tr>
<td>Chopped brome-alfalfa hay</td>
<td>400</td>
</tr>
<tr>
<td>Total mixture</td>
<td>2,000</td>
</tr>
</tbody>
</table>

Table 1. Weaning Age and Management Systems for Fall Born Beef Calves (1970-71)

<table>
<thead>
<tr>
<th>Calf Data</th>
<th>Calves</th>
<th>Calves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>nursing cows</td>
<td>weaned</td>
</tr>
<tr>
<td>Lot number</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>No. calves (bulls + heifers in each lot)</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Age in days at start</td>
<td>107</td>
<td>105</td>
</tr>
<tr>
<td>Days on trial (Dec. 30 to April 8)</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>Age in days at finish</td>
<td>206</td>
<td>204</td>
</tr>
<tr>
<td>Avg. initial weight, lb.</td>
<td>216</td>
<td>219</td>
</tr>
<tr>
<td>Avg. final weight, lb.</td>
<td>436</td>
<td>441</td>
</tr>
<tr>
<td>Avg. total gain, lb.</td>
<td>220</td>
<td>222</td>
</tr>
<tr>
<td>Avg. daily gain, lb.</td>
<td>2.22</td>
<td>2.24</td>
</tr>
<tr>
<td>Avg. daily feed, lb.</td>
<td>6.99</td>
<td>11.00</td>
</tr>
<tr>
<td>Creep feed per cwt. gain, lb.</td>
<td>314.42</td>
<td>490.82</td>
</tr>
<tr>
<td>Creep feed cost per cwt. calf gain, $</td>
<td>7.54</td>
<td>11.78</td>
</tr>
<tr>
<td>Creep feed cost per calf, $</td>
<td>16.59</td>
<td>26.15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cow Data</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cows</td>
<td>Dry</td>
</tr>
<tr>
<td>nursing calves</td>
<td></td>
<td>cows</td>
</tr>
<tr>
<td>Number of cows</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Avg. age of cows (years)</td>
<td>5.9</td>
<td>6.9</td>
</tr>
<tr>
<td>Avg. initial weight, lb.</td>
<td>1085</td>
<td>1094</td>
</tr>
<tr>
<td>Avg. final weight, lb.</td>
<td>1066</td>
<td>1001</td>
</tr>
<tr>
<td>Weight loss per head, lb.</td>
<td>19</td>
<td>93</td>
</tr>
<tr>
<td>Avg. daily feed, lb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brome alfalfa hay</td>
<td>17.6</td>
<td>16.7</td>
</tr>
<tr>
<td>Corn silage</td>
<td>26.0</td>
<td>none</td>
</tr>
<tr>
<td>Feed cost per cow for 99 days, $</td>
<td>27.72</td>
<td>16.53</td>
</tr>
</tbody>
</table>

Feed prices: Brome alfalfa hay, $20.00 per ton; corn silage, $8.00 per ton; creep feed, $2.40 per cwt.