Why Ewe Should Control Feed Intake

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Introduction

- Feeding strategies vary depending on a producer and animal’s needs.
  - Ad libitum feeding: Animals eat as much as they want.
  - Controlled feeding: Controlled amounts of feed at regular intervals (lbs./hd./day).
- Ad libitum feeding is convenient, however, the use of controlled feeding has been shown to increase dry matter intake (DMI) leading to an increase in average daily gain and decreased feed to gain ratio.
- Feed bunk management, (4 point scoring system) will maximize animal performance, minimize digestive problems, and ensure animals are eating consistently.

How do we Attain and Maintain Controlled Intake?

4 steps to controlling feed intake

1. Measure and record how much feed is given.
2. Observe how much feed is left before the next feeding. Use a scoring method as shown in Table 1.
3. Adjust how much feed is given to animals based on the previous day’s amount.
4. Be consistent with your feeding: feed a consistent amount at the same time each day.

Benefits of Controlled Intake

Controlled intake creates competition, increases efficiency, and improves performance:

- Feed scores >1 mean no competition.
- Controlled intake, grain-based diets, required 76% less feed per unit gain than ad libitum diets.
- Increases average daily gain, decreases feed cost, and decreases feed costs.
- Creates less waste and saves time clearing out refusals.
- Reduces the percentage of energy wasted on chewing forage.
- Digestibility of forages decreases with increased DMI.

Consistent feed intake results from controlled intake:

- Scores >½ allow an animal to overeat and then undereat the next day (sub-acute acidosis).
- Underfeeding fails to meet maintenance requirements, resulting in decreased growth.
- Controlled intake consistently exceeds maintenance requirements, allowing for growth and less feed fluctuation.
- Restricted feeding prevents weather patterns from impacting intake (hot vs. cold weather).

Table 1, SDSU Feedbunk Scoring System

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No feed remaining in bunk.</td>
</tr>
<tr>
<td>0.5</td>
<td>Scattered feed remaining. Most of the bottom of the bunk exposed.</td>
</tr>
<tr>
<td>1</td>
<td>Thin, uniform layer of feed remaining. About 1 cm horizontal depth.</td>
</tr>
<tr>
<td>2</td>
<td>25-50% of feed remaining.</td>
</tr>
<tr>
<td>3</td>
<td>More than 50% of feed remaining. Crown is thoroughly disturbed.</td>
</tr>
<tr>
<td>4</td>
<td>Feed is virtually untouched. Crown of feed still noticeable.</td>
</tr>
</tbody>
</table>

Figure 1, Feedbunk Score Examples

Table 2, Effects of Controlled Intake on Performance

<table>
<thead>
<tr>
<th>Lot</th>
<th>DMI (lb./d)</th>
<th>ADG (lb./d)</th>
<th>Feed/Gain (lb./lb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>20.3</td>
<td>3.8</td>
<td>5.38 (76% less)</td>
</tr>
<tr>
<td>B</td>
<td>19.6</td>
<td>2.1</td>
<td>9.47</td>
</tr>
</tbody>
</table>

This table was adapted from Pritchard and Fluharty. It demonstrates the benefits of controlled intake in increasing average daily gain and decreasing feed/gain.

Health, Carcass Quality, and Cost:

- Erratic feed intake leads to risk of acidosis and bloat.
  - Large starch loads kill protozoa, but bacterial populations increase and produce more lactic acid, lowering the pH of the rumen (acidosis).
  - May see decreased rumination and excessive gas buildup (bloat).
  - Additional input cost for treatment, or loss of income from death.
  - Treatment costs $25-90/100lb.
  - Surviving animals not likely to eat maintenance levels the next day - loss of productivity and daily weight gain.
- Feed waste and digestive issues increase feed to gain, thus increasing cost.
  - Feeding for appetite decreases waste.
- Muscle requires lower energy intake than fat.
  - Restricted feeding increases muscle building efficiency, decreases fat deposition.
  - Carcasses increase in value.
- Utilizing controlled intake allows you to feed less, avoid digestive issues, and produce a more valuable product contributing to a larger return on investment.

Figure 3, Lamb Carcasses

Considerations when Building a Controlled Feeding System

- Feed quantity depends on weight, health, quality, genetics, and targeted market weight.
- Risks are always present; include lamb deaths, shy feeders, poor weight gain, and unexpected changes in market prices.
- Sites should be well drained for the feed bunk, grain storage, and shelter.
- Clean, high quality water impacts intake and weight gain. Lack of fresh water can decrease feed intake as 1 lb. of DMI requires 7 lbs. of water.
- Utilization of a scoring system will increase weight gain leading to greater efficiency and decreasing digestive problems.
- Minimum requirement for trough length is 6-12 in. per lamb with a width of 12 in., depth of 8-10 in. and a height of 12 in. above ground.
- Starter rations acclimate lambs to the high grain of finishing diets. Diets should be balanced, high in energy and protein.

Figure 4, Troughs

Bibliography

2. Drovers. 2016. Feed Bunk Management Tips

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