Best Practices for Managing Awassi Sheep

Body Condition Scoring
“Best Practices for Managing Awassi Sheep”
10 - Body Condition Scoring

This booklet was compiled by: Adnan Termanini and Barbara Rischkowsky.
Revised by Dr. Tim Treacher
Illustration, layout and design by: Fahed Hariri
Photography by: Adnan Termanini

For more information please contact:
Dr. Barbara Rischkowsky   b.rischkowsky@cgiar.org
ICARDA-Ethiopia Office, P. O. Box: 5689, Addis Ababa, Ethiopia
Tel: +251 11 617 2283
Fax: +251 11 617 2001

Electronic copy can be found on: www.icarda.org
In order to manage sheep correctly throughout the production cycle, producers need to know whether their sheep are in the right condition. This assessment is important when making decisions to adjust feeding to meet the ewes’ requirements at each stage of the productive cycle (mating, late pregnancy, lactation).

The body condition score describes the body condition of an individual animal by manual palpation. It estimates the state of muscle and fat development. It is useful in assessing the nutrition and health status of animals. Scoring is based on feeling (palpating) the thickness of muscle and fat over and around the vertebrae in the loin region, the ewe is then given a numerical score between 1 and 5.

Liveweight versus body condition score
Weight at a given stage of production is a more precise measurement than the body condition score. However, if there is a wide variation in mature size between individuals, weight will not indicate whether the individual animal is in the correct body condition. Body condition scoring does not require any equipment and is more accurate than a simple eye appraisal.

Where to score body condition
Condition score is best evaluated at the center of the rump of the animal, behind the last rib and in front of the hip bone.
How to score body condition

Evaluate each sheep in the same way.
Examine the sheep while it is standing in a relaxed position.
Sheep should not be tense or held in a crush.

Feel the spine in the center of the sheep’s back, behind the last rib and in front of the hip bone.

Locate the tips of the transverse processes.

Assess the thickness of muscle and fat cover.
The Scoring System

Body condition score 1 (emaciated)
- Spinous process is prominent and sharp, possible to feel between each process
- Transverse process is sharp and the fingers can easily pass under it
- Muscle is shallow with no fat cover

Body condition score 2 (thin)
- Spinous process is prominent but smooth
- Transverse process rounded
- Muscles medium depth with thin fat cover Fingers go under with pressure

Body condition score 3 (average)
- Spinous process is rounded and smooth
- Transverse process smooth and rounded
- Muscles full, moderate fat cover and hard pressure is needed to find ends

Body condition score 4 (fat)
- Spinous process can only be detected as a line
- Transverse process cannot be felt
- Muscles full with thick fat cover

Body condition score 5 (obese)
- Spinous process is not detectable, indentation in the fat over the spine
- Transverse process not detectable
- Muscles very full with very thick fat cover
The scoring system describes all conditions from emaciated to obese.
In typical flocks, over 90 percent of the sheep have body condition scores of 2 or 3.
Half scores are generally used between 1 and 4 (i.e. scores of 1, 1.5, 2, 2.5, 3, 3.5, 4, and 5), to improve precision.
Scoring is quite accurate when performed by trained evaluators.
When to score body condition

The most important times to body condition score ewes during the production cycle are:
- Pre-mating
- Mid-gestation
- Post-partum
- Weaning

Condition scores at pre-mating
Ewes that are in poor condition prior to mating may have:
- difficulty in conceiving (lower pregnancy rates)
- a reduced number of lambs
- longer lambing intervals

Condition scores at mid-gestation
Ewes that are poor condition in mid-gestation require careful feeding, particularly in the last 6 weeks of gestation, when the growth rate of the lamb in the uterus is very rapid.
During the last third of the gestation, ewes must consume enough feed maintain fetal growth and maintain body reserves sufficient for a good level of milk production after lambing.
Fat or obese ewes may have reduced intakes of feed.
Condition scores post partum
Ewes that are in poor condition after lambing may:
produce less milk, if they are not fed at a high level.
If milk yield is reduced the lambs will be lighter at weaning

Condition scores at weaning of lambs
Ewes generally utilise body reserves during lactation to sustain milk production.
Ewes that are in poor condition at weaning may:
• have prolonged weaning-to-oestrus intervals
• fail to return to oestrus
• show reduced conception rates if they are not fed to ensure their body condition
  improves at the end of the milking period or in dry period before mating
The recommended condition scores for Awassi ewes at the different stages of the production cycle are:

<table>
<thead>
<tr>
<th>Production stage</th>
<th>Optimum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-mating</td>
<td>3.0 - 2.5</td>
</tr>
<tr>
<td>Mid Gestation</td>
<td>2.5</td>
</tr>
<tr>
<td>Post partum</td>
<td>3.0</td>
</tr>
<tr>
<td>At weaning of lambs</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**How to use body condition scores**

During the annual production cycle it is common for feed intake, at times, to be both above and below nutrient requirements, particularly when the flock is grazing

Feeding above requirement is acceptable, and is an important technique in managing feeding, if the stored fat is used later, at a time when ewes have high nutrient requirements (late gestation, lactation).

Under-feeding is acceptable during periods of low nutrient requirement but should be avoided, if possible, during mating, late gestation and lactation.
## Ideal body condition changes during the productive cycle

### Body Condition Score

<table>
<thead>
<tr>
<th>Score</th>
<th>Preperation</th>
<th>Gestation</th>
<th>Milk Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Early</td>
<td>Mid.</td>
<td>Suckling</td>
</tr>
<tr>
<td>3</td>
<td>Mid.</td>
<td>Late</td>
<td>Milking</td>
</tr>
<tr>
<td>2</td>
<td>Late</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **Drying:** 0-30 days
- **Mating:** 30 days
- **Lambing:** 60 days
- **Weaning:** 120 days
- **Drying:** 150 days

### Scoring Body Condition

Table showing body condition scores and their correlation with different stages of the productive cycle.
If ewes are below the desired condition score at any stage of production or are rapidly losing condition, it is important to ascertain the reasons:

- They may be excellent milkers and have used body reserves to sustain production; these are the best ewes and need to be supplemented
- They may have a high parasite load or be ill and need to be examined by a vet and treated
- They may be old and/or may have lost teeth, in which case, their productive value should be carefully assessed and they should either be culled or fed preferentially, so that they gain condition.

If ewes are very fat or obese

- They may be unproductive and should be culled
- Or they should be separated and their feed supply restricted, unless they are being mated, or are in late pregnancy or lactation

**Conclusions**

Evaluating body condition of ewes is an effective way to monitor animal health and nutritional status indicates that:

- Changes to feeding are needed to ensure that the nutritional requirements of the ewe are met.
- Helps to cull unproductive ewes
- Regular condition scoring, followed by appropriate action, will ensure healthier ewes and more profitable production
Best Practices for Managing Awassi Sheep

1. Mating
2. Pregnancy Period
3. Lambing Period
4. Lactation Period
5. Milking and Milk Processing
6. Sheep Selection
7. Health Care Guide
8. Feed reference Guide
9. Preparing Urea-treated Straw
10. Body Condition Scoring
11. Lamb Fattening