Well fed sheep and goats produce

- More milk
- More meat
- More kids and lambs in a lifespan.

How to supplement sheep and goats using local dry land tree legumes

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Introduction
Sheep and goats in the dry areas of Kenya are mainly fed on natural pastures which are low in protein and energy. Subsequently, low fertility, slow growth rates and low milk production are common. There is therefore need to supplement with protein sources some of which are indigenous legumes such as Acacia and Balanites.

These two are:
- Highly palatable to sheep and goats
- Have high protein and energy levels and are easily digestible.

The edible parts of Acacia include the bark, leaves and fruits while those of Balanites include the branch tips, leaves and the fruits.

Composition of edible parts of Acacia, Balanites and hay

<table>
<thead>
<tr>
<th>Forage</th>
<th>Dry matter</th>
<th>Crude protein</th>
<th>Calcium</th>
<th>Phosphorus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia</td>
<td>65</td>
<td>11</td>
<td>2.8</td>
<td>0.006</td>
</tr>
<tr>
<td>Balanites</td>
<td>66</td>
<td>15</td>
<td>1.7</td>
<td>0.013</td>
</tr>
<tr>
<td>Hay</td>
<td>84</td>
<td>7</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Advantages of feeding sheep and goats with legumes
- Acacia and Balanites trees are tolerant to drought and readily available year round.
- Dried legumes can be stored and used during the dry season.
- They provide protein, carbohydrates, minerals and essential vitamins for fertility and growth.

How to prepare a legume supplement
- Collect bark, branch tips, shoots, leaves and the fruits and dry in the sun.
- Cut into small pieces and grind using a hammer or mallet.
- Sieve the contents to remove indigestible materials.
- Put surplus feed material in aerated gunny bags for storage.

Feeding the sheep and goats
- Graze the sheep and goats during the day on natural pastures in the traditional way.
- Bring the animals from the field and house them in a night boma or kraal.
- Give adults 140g and young stock 70g per day of Acacia and Balanites supplements using a basin or feeding trough.