Effect of replacement of green grass by jackfruit leaf
(Artocarpus heterophyllus) on the performance
of Black Bengal goats of Bangladesh
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Twelve male yearling goats of similar live weights were randomly divided into three
groups (A, B and C) of four animals. Three diets: German grass (Echinocloa grousugaii)+
wheat bran+ molasses (T1), German grass+ Jackfruit (Artocarpus heterophyllus)+ wheat
bran+ molasses (T2) and Jackfruit leaf+ wheat bran+ molasses (T3) - were fed to the three
groups respectively. Grass or leaf was given ad libitum in T1 and T3 groups.

Dry matter (DM) content (g/kg) of tree leaf (328) was higher than that of green grass (200)
which has also been reported by Akbar and Alam (1991, Small Rum Res, 6, 25-30). Crude
protein (CP) content (g/kg) of Jackfruit leaf (123) was higher than that of German grass
(81). Intake of German grass (T1) as a sole roughage was slightly higher than that of
Jackfruit leaf (T3). Total feed intake among different groups were not very different.

Digestibility of organic matter (OM) and Crude fibre (CF) were similar but that of CP was
higher (P<0.05) in T1 than in T3. There was no significant difference in the digestibility of CP
between T1 and T2.

Growth was similar between grass and tree leaf fed animals but was significantly (P<0.05)
higher in animals fed on mixed diet (grass + leaf). Feed conversion efficiency (FCE) was
the highest for the mixed diet followed by sole grass and sole leaf diets respectively with non-
significant differences.

In conclusion it may be said that green grass can be partially or fully replaced by Jackfruit
leaf in the diet of goat in the period of grass scarcity.

<table>
<thead>
<tr>
<th>Attributes</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM intake (g/d)</td>
<td>411.0 ± 2.0a</td>
<td>398.8 ± 2.6b</td>
<td>400.7 ± 3.1a</td>
</tr>
<tr>
<td>DM intake (g/kg W0.75)</td>
<td>63.13 ± 0.95a</td>
<td>65.89 ± 1.1ab</td>
<td>68.38 ± 1.4b</td>
</tr>
<tr>
<td>Dig OM intake (kg/d)</td>
<td>0.25</td>
<td>0.24</td>
<td>0.23</td>
</tr>
<tr>
<td>COD of OM (%)</td>
<td>66.0 ± 1.0</td>
<td>65.7 ± 1.7</td>
<td>64.1 ± 1.1</td>
</tr>
<tr>
<td>COD of CF (%)</td>
<td>67.0 ± 1.2</td>
<td>66.9 ± 1.0</td>
<td>66.5 ± 1.3</td>
</tr>
<tr>
<td>COD of CP (%)</td>
<td>68.4 ± 1.10a</td>
<td>67.9 ± 0.98ab</td>
<td>64.4 ± 1.33b</td>
</tr>
<tr>
<td>Live wt gain (g/d)</td>
<td>53.21 ± 0.68a</td>
<td>58.12 ± 0.96b</td>
<td>50.1 ± 0.90a</td>
</tr>
<tr>
<td>FCE (kg feed/kg gain)</td>
<td>7.73 ± 0.41</td>
<td>6.85 ± 0.45</td>
<td>8.00 ± 0.90</td>
</tr>
</tbody>
</table>

COD : Coefficient of digestibility ; Dig : Digestible.