Feed intervention >> Total mixed rations – mash, blocks, pellets

Complete feeds for ruminants

**Description**

- Complete feed is a balanced feed ration that ensures good growth and performance of the target animal. It is made up of a mix of pulverized roughages and concentrates, and can be in powder (mash), pellet or block form.
- Complete feeds are available for different growth and productive phases of ruminants such as dairy cattle, beef cattle, sheep and goats to fulfil the varying nutritional needs of these animals.
- Complete feed formulation requires knowledge of the nutritional requirements of the targeted production objective and reliable information on the nutrient composition of different feeds.

**Key benefits**

- It is simple – just add water.
- Low labour requirement for feeding.
- Little or no wastage.
- Good quality complete feeds ensure high intake and digestibility and guarantee high growth and performance, prevent selective feeding and increase resting time through reduction in chewing and rumination time.
- Most suited for peri-urban commercial producers with animals of high genetic potential, who depend entirely on purchased feed.
- Feed ingredients which otherwise cannot be utilized easily (e.g. low-cost plantation by-products such as oil palm fronds) can be incorporated successfully in complete diets.

**Key limitations**

- Expensive to purchase and therefore mostly used for highly productive and valuable animals.
- Producing complete feeds requires a high level of expertise and investment.

TechFit is a tool to prioritize and select animal feed interventions. It was developed by ILRI under the leadership of Alan Duncan. It has been further refined and developed with inputs from many individuals in and beyond CGIAR. This is one of a series of feed intervention ‘TechSheets’ developed alongside the TechFit tool to provide summarized information on different interventions included in the tool. Werner Stür led the development of the TechSheets. This sheet was prepared by Anandan Samireddypalle. TechFit is supported by the CGIAR Research Program on Livestock and Fish. [ilri.org/techfit](http://ilri.org/techfit)
Where does this intervention fit?

<table>
<thead>
<tr>
<th>Potential to overcome feed limitations</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feed scarcity during <strong>dry season</strong></td>
<td>very high</td>
</tr>
<tr>
<td>Feed scarcity during <strong>cropping season</strong>:</td>
<td>high</td>
</tr>
<tr>
<td>Low feed availability :</td>
<td>very high</td>
</tr>
<tr>
<td>Poor feed quality :</td>
<td>very high</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicability to livestock</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle/buffalo</td>
<td></td>
</tr>
<tr>
<td>Breeding (cow-calf) :</td>
<td>none</td>
</tr>
<tr>
<td>Fattening :</td>
<td>medium</td>
</tr>
<tr>
<td>Dairy :</td>
<td>very high</td>
</tr>
<tr>
<td>Sheep/goats</td>
<td></td>
</tr>
<tr>
<td>Breeding :</td>
<td>medium</td>
</tr>
<tr>
<td>Fattening :</td>
<td>high</td>
</tr>
<tr>
<td>Pigs</td>
<td></td>
</tr>
<tr>
<td>Breeding (sow-piglets) :</td>
<td>n/a</td>
</tr>
<tr>
<td>Fattening :</td>
<td>n/a</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Applicability to farming system</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pastoral (extensive grazing systems) :</td>
<td>n/a</td>
</tr>
<tr>
<td>Agro-pastoral/extensive mixed systems :</td>
<td>n/a</td>
</tr>
<tr>
<td>Intensive mixed crop-livestock system :</td>
<td>high</td>
</tr>
<tr>
<td>Landless livestock producers :</td>
<td>very high</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement for resources</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Land :</td>
<td>n/a</td>
</tr>
<tr>
<td>Water :</td>
<td>medium</td>
</tr>
<tr>
<td>Labour :</td>
<td>low</td>
</tr>
<tr>
<td>Cash/credit :</td>
<td>very high</td>
</tr>
<tr>
<td>Access to inputs :</td>
<td>very high</td>
</tr>
<tr>
<td>Knowledge/skills :</td>
<td>low</td>
</tr>
</tbody>
</table>

**More information:**