Existing cattle feeding practices in Puducherry region

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Abstract
A study was conducted among 200 cattle owners in Puducherry region to ascertain the feeding pattern and fodders used for feeding their cattle. The study revealed that all the farmers fed their animal with Paddy straw and concentrates. Green fodder feeding and mineral mixture was practiced by only 20% of the cattle owners. Lack of awareness about the feeding of mineral mixture, lack of land and feeding cost was identified has the major constraint.

Keywords: Feeding, management, fodder

Introduction
Livestock production is backbone of Indian Agriculture and source of employment in rural areas for centuries. This sector has been the primary source of energy for agriculture operation and major source of animal protein for the masses. Therefore India has been house to major draught, milk and dual-purpose breeds of cattle. Our whole system of rural economy has revolved around livestock production (Ali, 2007) [1].

India is house to 15% world cattle population and 16% of human population to be sustained and Progressed on 2% of total geographical areas. Due to ever increasing population pressure of human, arable land is mainly used for food and cash crops, thus there is little chance of having good quality arable land available for fodder production, until milk production is remunerative to the farmer as compared to other crops. (DAHD, 2012) [2].

Feed & fodder cost constitute about 60-70% of cost of milk production thus cultivated fodder has an important role in meeting requirement of various nutrients & roughage in our country to produce milk most economically as compared to concentrates. (BAIF, 2012) [3].

Animal feed and fodder crops are those plants that are raised to feed livestock. At present, the country faces a net deficit of 61.1% green fodder, 21.9% dry crop residues and 64% concentrate feeds. The feed and fodder shortage has been identified as the single largest factor responsible for low productivity of livestock in India. Studies on assessment of feed resources availability and quantifying the surplus or deficit position have been hitherto mostly restricted to the national level. Crop residues and their by-products constitute major ingredients (40%) in daily ration followed by green fodder (26%), concentrates (3%) and remaining comes through grazing. (Working Group Report, 2012) [6].

The situation has worsened since the estimation by Natchimuthu et al., 2005 [4] reported that there was a deficit of 7.7 % dry fodder, 70 % of green fodder and 81.9 % of concentrates. Tamizhkumaran and Raghy (2016) [7] in their study proved that the deficit of feed resource still exists facing a net deficit of 84 per cent of green fodder, 27 per cent of dry fodder and 90 per cent of concentrate feeds.

Materials and Methods
The study was conducted among 200 cattle owners in puducherry region. Four communes via Villianur, Oulgaret, Mannadipet and Bahour was selected purposively. 50 cattle owners from each commune were selected randomly and the data was collected personally by the researcher based on the semi structured interview schedule to estimate the feeding pattern in this region. The data was analysed using SPSS 16.

Results and Discussion
The dairy owners of the Puducherry region have their own feed formulation for their dairy cows. Majority of them feed their animals with dry fodder and concentrate due to non-availability of green fodder in this area.
To compensate the green fodder they take their animal for grazing almost 6-8 hours in a day. Concentrates are only fed to the milking and pregnant animals and not to dry animals.

Green Fodder

There is no practice of growing green fodder crops in Pondicherry and the area under fodder cultivation is negligible around 98 hectares (less than national average of 4 per cent) owing to the decreasing cultivable lands and flourishing real estates in the region. However, it was estimated that the green fodder availability in UT of Pondicherry was about 33,837 MT per year on as fed basis against the requirement of about 2,21,361 MT i.e. a shortage of about 84.7 per cent exists. There are practically no forest and grasslands/pastures in Pondicherry where the animals can be taken for grazing. However, half of the cattle owners in Pondicherry region let their animals graze for about six hours a day during monsoon season along the road sides, abandoned housing plots, open fields and uncultivated vacant lands. Only around 280 farmers were reported to produce green fodder in their own backyard in whole of Pondicherry region (PONLAIT, 2008). Only 20 per cent of the cattle owners feed their cattle with green fodder (CO3). The main reason being lack of cultivable land and lack of interest by the cattle owners in growing green fodder. Most of the cattle owners in Pondicherry own two to three animals and are landless.

Dry Fodder

Paddy straw is the most common dry fodder available for livestock feeding followed by sugarcane tops though it’s not being used as livestock feed in this region. The straw is the major source of feed available to ruminants as there is no proper green fodder produced in this area. Due to reduction in cultivable lands and decrease in production of paddy cultivation the crop residue production is also coming down year by year. The current estimation revealed that the total dry fodder availability was 71686 tonnes and the requirement was estimated to be 98382 i.e a shortages of about 27 percent. The sugarcane tops is not being considered as dry fodder for the reason it’s being used only for thatching house and cattle and rarely used for feeding animals. Paddy straw is being purchased during the post-harvest season, majority of the farmers bought the paddy straw in terms of per acre which was around 5000 including the labour cost and transport charge. The paddy straw was sufficient enough for their herd for six months. The paddy straw being the byproduct of paddy cultivation is available only once in every six months. All the cattle owners are purchasing paddy straw in regular intervals, since it is the only major feed source for their cattle in this region.

Concentrates

Due to the scarcity of green fodder in Pondicherry, the milk yield of cross bred cows has to be maintained by feeding of Dry fodder and concentrates. The current estimation showed there is 90 per cent shortage of concentrates availability in this region. The availability of the concentrate feed in the region was estimated to be 7185 tonnes. Most of the concentrates available in the region is being procured from the neighboring state which increase the cost of inputs drastically. One kilogram GNC is around Rs.52 and wheat bran is around Rs.16 per Kg. PONLAIT even stopped producing compound cattle feed due to the increase in the cost of inputs and the less milk procurement price. The concentrates were purchased in bulk or per kg basis by the cattle owners. 45 per cent of the cattle owners in the study purchased the concentrate in bulk whereas the remaining lot purchased on week basis whenever required. The main concentrates purchased were wheat bran, rice bran, groundnut oil cake etc. The list of different concentrates purchased and their rates are given in Table.1

Table 1: Cost of Feeds and Fodder in Pondicherry region

<table>
<thead>
<tr>
<th>S. No</th>
<th>Feeds and Fodder</th>
<th>Cost/Kg</th>
<th>Cost/Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Paddy straw</td>
<td>14/kg</td>
<td>5000/acre</td>
</tr>
<tr>
<td>2.</td>
<td>Groundnut oilcake</td>
<td>52/kg</td>
<td>3400/70kg</td>
</tr>
<tr>
<td>3.</td>
<td>Wheat bran</td>
<td>16/kg</td>
<td>890/50kg</td>
</tr>
<tr>
<td>4.</td>
<td>PONLAIT concentrate feed</td>
<td>15/kg</td>
<td>500/50kg</td>
</tr>
<tr>
<td>5.</td>
<td>Tapioca Tippi</td>
<td>14/kg</td>
<td>550/35kg</td>
</tr>
<tr>
<td>6.</td>
<td>Rice bran</td>
<td>13/kg</td>
<td>530/45kg</td>
</tr>
<tr>
<td>7.</td>
<td>Deoiled Rice bran</td>
<td>11/kg</td>
<td>470/50kg</td>
</tr>
<tr>
<td>8.</td>
<td>Gram Husk</td>
<td>22/kg</td>
<td>830/40kg</td>
</tr>
<tr>
<td>9.</td>
<td>Red Gram Husk</td>
<td>15/kg</td>
<td>440/35kg</td>
</tr>
<tr>
<td>10.</td>
<td>SKM Pellet feed</td>
<td>19/kg</td>
<td>1350/70kg</td>
</tr>
<tr>
<td></td>
<td>Normal feed</td>
<td>17/kg</td>
<td>1050/60kg</td>
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</table>

* Price difference was noticed when purchased in bulk

Conclusion

The cattle owners feed their animals based on the amount of milk produced by them, the dry animals and pregnant animals were not fed properly as they were not producing any milk. People were not aware about the importance of feeding during pregnancy. Importance of green fodder feeding was also not known by the cattle owners. The result of the study revealed that the cattle in Pondicherry region were fed with paddy straw and concentrates regularly. Only 20% of the cattle owners fed their animal with green fodder.

References

5. PONLAIT the Puducherry Co- Operative Milk Producers’ Union Ltd, Kurumbapet, Puducherry, 2012.