

## **A SURVEY ON FEEDING PATTERN OF RICE GRUEL AMONG THE FARMERS OF NORTH EASTERN AGROCLIMATIC ZONE OF TAMIL NADU**

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**Abstract:** A survey was carried out in the north-eastern agro climatic zone of Tamilnadu to find out the traditional feeding pattern. Survey results indicated that 55 per cent of farmers feed rice gruel with bran and 73 per cent of farmers feed 2.5 liters of rice gruel / animal / day. Starch / energy content of the rice gruel is highly variable due to various factors such as dilution with water, addition of rice washings addition of vegetable scraps, addition of excess rice, etc. Creating an intervention for the effective utilization of energy present in the rice gruel is essential.

**Keywords:** Rice gruel, North-Eastern, Feeding Pattern.

### **Introduction**

Identification of traditional feeding patterns and creating an intervention to them are necessary to reduce the production and maintenance cost of animals. Livestock farmers living in the delta and paddy cultivating regions of Tamil Nadu have been feeding their livestock especially ruminants with rice gruel since many decades. Grazing or roughage feeding supplemented with rice gruel is a common practice among farmers who own low yielding dairy cattle. Nutritional intervention to their traditional feeding practices without involving any additional inputs will help the small and marginal farmers to sustain milk production. Keeping this in mind a survey was carried out in the north-eastern agro climatic zone of Tamilnadu to find out the traditional feeding pattern.

### **Materials and Methods**

A survey was carried out to assess the existing feeding practice with reference to rice gruel and its impact on the animal health / production. Though feeding of rice gruel is practiced throughout the state of Tamil Nadu, this survey was carried out in one agro-climatic zone, where, wide spread practice of feeding rice gruel is in vogue. Rice gruel feeding practice

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followed by the farmers was assessed with the help of standard questionnaire. Accordingly, four hundred farmers from Villupuram, Kancheepuram and Cuddalore districts were distributed with questionnaire to investigate the rice gruel feeding practice followed by them.

### Results and discussion

The results of the survey carried out among four hundred farmers of three districts to assess the rice gruel feeding practice are presented in Table 1. The survey revealed that highest percentage (55 per cent) of farmers adopted the practice of feeding rice gruel along with rice bran. A wide variation existed among farmers in the quantity of gruel decanted (litre per day) in their home. Large group of farmers (63 per cent) decanted around 2 to 3 litres of rice gruel in their home. Only 7 per cent of the farmers decanted more than 6 litres of rice gruel in their home.

**Table 1 Feeding regimen adopted by farmers in the north-eastern agro-climatic zone of Tamilnadu with respect to rice gruel (survey results from the farmers)**

S. No	Parameters assessed	Farmers under the respective category
<b>1</b>	<b>Milk yield of cows</b>	
a	0 – 1.9 litres / day	100 (25%)
b	2 – 4.9 litres / day	240 (60%)
c	More than 5 litres / day	60 (15%)
<b>2</b>	<b>Rice gruel feeding regimen</b>	
a	Rice gruel + Concentrate mixture + Bran + Sesame oil cake	60 (15%)
b	Rice gruel + only bran	220 (55%)
c	Rice gruel + Concentrate + Bran + GNC	60 (15%)
d	Only grazing + Rice gruel	60 (5%)
<b>3</b>	<b>Quantity of rice gruel decanted (litres per day) in their home</b>	
a	0.5 – 1.9 litres	60 (15%)
b	2 – 3 litres	252 (63%)
c	4 – 6 litres	60 (15%)
d	More than 6 litres	28 (7%)
<b>4</b>	<b>Quantity of rice gruel fed to the animal (per day)</b>	
a	Less than 2.4 litres	68 (17%)
b	2.5 litres	292 (73%)
c	More than 2.5 litres	40 (10%)

Values within the parenthesis indicate the percentage of farmers

The quantity of rice gruel fed per animal per day also varied; most of the farmers (73 per cent) fed only 2.5 litres rice gruel per day to their animals, and only 10 per cent of the farmers fed more than 2.5 litres of gruel per day to their animals.

Concurring with the results of this survey, Das and Tripathi (2008) had also reported that in stall fed cattle / buffaloes in Sundarbans delta, it is common to feed paddy straw along with rice gruel, rice washed water, rice bran and kitchen waste. Rao *et al.* (1995) also had reported feeding of rice washing, gruel, gram husk, rice bran, vegetable scraps, excess rice etc., in states of Andhra Pradesh, Tamil Nadu and West Bengal. Rice gruel mixed with the small amount of oil cake or bran is used to feed milking cows in Bangladesh (FAO, 1999).

A survey on rice gruel feeding practice to dairy cattle among farmers of North-Eastern agro-climatic zone of Tamil Nadu indicated that majority of farmers are feeding gruel supplemented with rice bran. Oil cakes / concentrate supplementation to rice gruel was not common as it could be uneconomical to low yielders.

The amount of rice gruel being fed to animals has not been quantified in any of the earlier reports reviewed. In districts of eastern coast of India it is a common practice among farmers to maintain a pot and fill it with rice washing, gruel etc. (Rao *et al.*, 1995) and provide it as a supplement to their cattle without actually measuring the volume. Majority of the farmers surveyed reported that they fed 2.5 litres of gruel per day to their animals. This also concurred with the survey data which indicated that majority of households generated 2 – 3 litres of gruel per day and the farmers are only feeding the rice gruel which is actually generated in their household. This practice has more relevance in regions of sub-continent where rice forms the staple food of the human population. Rice gruel feeding is common in East coast of India mainly Andhra Pradesh, Tamilnadu and West Bengal (Rao *et al.*, 1995). In Bangladesh rice gruel has been used as a traditional supplement for milking dairy cattle and fattening beef cattle (FAO, 1999).

### **Conclusion**

The survey results indicated that 55 per cent of farmers feed rice gruel with bran and 73 per cent of farmers feed 2.5 liters of rice gruel / animal / day. Starch / energy content of the rice gruel was highly variable due to various factors such as dilution with water, addition of rice washings, addition of vegetable scraps, addition of excess rice, etc. In addition to variability in the energy content of the gruel due to various cooking methods, which warrants the standardization of the energy content of the gruel. Creating an intervention in the existing

feeding pattern (rice gruel) will be more useful rather than introducing a new method of feeding livestock.

### **References**

- [1] Das, S.K. and Hema Tripathi, (2008). Livestock and Feeding Practices in Rural Sundarbans Delta of India. *Anim. Nutr. Feed. Techn.*, **8**:137-142.
- [2] FAO, (1999). Poverty alleviation and food security in Asia – Role of Livestock. RAP publication, 1999/4.
- [3] Rao, S.V.N., Van Den Ban. A.W., Rangnekar, D.V. and Ranganathan, K. (1995). Indigenous Technical Knowledge and Livestock. Handbook for straw feeding systems Kiran Singh and J.B.Schiere (eds.), ICAR, New Delhi, India.