



## Study on Dairy Cow Body Condition Score in Puducherry, India

A Rajadurai<sup>1\*</sup>, V Rajaganapathy<sup>2</sup>, R Ganesan<sup>3</sup>, P Ponnuvel<sup>2</sup>, K Natchimuthu<sup>4</sup> and D Sreekumar<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Livestock Production Management, Veterinary College and Research Institute, Theni, India

<sup>2</sup>Professor, Department of Livestock Production Management, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry, India

<sup>3</sup>Professor, Department of Animal Genetics and AMP, Breeding, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry, India

<sup>4</sup>Professor, Department of Veterinary and Animal Husbandry Extension Education, Rajiv Gandhi Institute of Veterinary Education and Research, Puducherry, India

**\*Corresponding Author:** A Rajadurai, Assistant Professor, Department of Livestock Production Management, Veterinary College and Research Institute, Theni, India.

**Received:** July 22, 2022

**Published:** August 24, 2022

© All rights are reserved by A Rajadurai, et al.

### Abstract

A study was conducted to identify the dairy cattle housing management by collecting data from 220 dairy farmers in Puducherry. Out of 451 dairy cows, 81.6 per cent of dairy cows had a body condition score of 3. This indicated that most of the cows in Puducherry region were having frame and covering well, high producing, but body fat may not be enough for peak production.

**Keywords:** Body Condition Score; Puducherry; Milch Cow

### Introduction

Animal health plays an important role in harnessing the expected production potential of dairy animals. A diseased animal cannot perform to the expected level. Timely intervention is therefore pivotal in reducing the economic losses due to diseases. Body scoring is very important in assessing the health status of an animal. A low score may indicate diseases or improper feeding while a high score may indicate a high probability of breeding and metabolic problems. Body scoring would be a helpful yardstick to monitor health [1].

### Materials and Method

A field survey was undertaken in five rural communes and two urban municipalities of Union Territory of Pondicherry has a total

area of 480 sq. km. The sampling procedure followed for this study was stratified proportionate random sampling. Here, a sample size of  $n = 220$  has been determined using the formula  $n = Z^2pqN/e^2(N-1) + z^2pq$  [2]. The sample size of 220 was randomly distributed based on the population of dairy farmers in each of the communes and municipalities [1].

### Results and Discussion

Out of 451 dairy cows, 84.7 per cent of dairy cows had the body condition score of 3. This indicates that most of the cows in Puducherry had frame covering well, high producing, but fat may not be enough for peak milk production. Only 5.5 per cent of total cows were in the category of score 4. This may support for peak milk production but frame not visible and may have more metabolic problems at calving (Table 1).

Body Score-1	Extremely thin. No fat in brisket or tail docks. All skeletal structures are visible. Dull hair May be diseased and survival during stress is doubtful
Body Score-2	Thin. Vertebrae, hips and pin bone prominent. Some tissue covers around tail dock, hip bones and the flank. Muscle tissue evident but not abundant, health may be OK.
Body Score-3	Ribcage only slightly visible. Fat deposit behind shoulder obvious, ideal condition for calving. Fat deposit in brisket area. Hook and pin bone visible, but not prominent
Body Score-4	Skeletal structure difficult to identify. Obvious fat deposits behind shoulder and tail head. Flat appearance to the top line. Folds of fat starting to develop over ribs and thighs.
Body Score-5	Animal is obese, flat appearance dominates. Brisket is heavy and bone structure not noticeable. Tail head and hip bones completely buried in folds of fat. Back is flat and completely covered by fat. Mobility impaired by large fat deposits.

Table a

Body condition Score	Communes (371)		Municipalities (80)		Total (451)	
	N	%	n	%	n	%
2	34	9.1	10	12.5	44	9.8
3	319	86.0	63	78.8	382	84.7
4	18	4.9	7	8.7	25	5.5

Table 1: Body condition score.

This finding is in line with the result of NDDDB (2016) [1]. Score 1 for not in good health, Will not milk well or reproduce. Score 2 Health may be good, But milk production low and poor reproduction. Score 3 high producing, but fat may not be enough for peak production. Score 4 - Frame not very visible, may have more metabolic problems at calving.

**Conclusion**

The knowledge of dairy farmers on dairy farming was low in both rural and urban categories which require different levels of training in the areas like deworming, vaccination, method of milking, feeding methods (chaffing), balanced feeding, scientific knowledge on housing. Training of dairy farmers in hydroponic system of green fodder cultivation to overcome the shortage of green fodder and enhance the production.

**Bibliography**

1. National Dairy Development Board. "Handbook of Good Dairy Husbandry Practices" (2016): 9-10.
2. Kothari CR. "Research Methodology: Methods and Techniques". Second Revised, Edition, New Age International Publishers. NewDelhi (2009): 416.

**Volume 6 Issue 9 September 2022**

**© All rights are reserved by A Rajadurai, et al.**