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COMPOSITIONAL QUALITY OF MILK AS INFLUENCED BY INTERVAL BETWEEN MILKING IN GANGATIRI COWS

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ABSTRACT : The present study was undertaken on "Compositional quality of milk as influenced by interval between milking in Gangatiri Cows" on healthy cows 10 (Gangatiri cow) selected from SHIATS dairy farm Allahabad. All cows were housed in tail to tail barn under similar management conditions. All sanitary precautions were undertaken to produce clean milk by dry full hand method of milking. Representative samples of 200 ml milk were collected from the milking at 3:00 AM and second time at 3:00 PM. Samples of fresh milk drawn from the udder were analyzed for fat, protein, lactose, ash, solid not fat (SNF), total solid (T.S.), water, acidity percent and sp.gr. It was concluded that the interval between milking (AM and PM milking) had significant influence on protein percentage and non-significant influence on fat, lactose, ash, total solid (T.S.),solid not fat (S.N.F.), water acidity and specific gravity (Sp.gr.) of cow's milk. Therefore, compositional quality of evening milk was better than morning milk.

Key words : Gangatiri cow, milk quality, interval between milking.

INTRODUCTION

In India, there are about 40 breeds of cattle among this cattle breed Gangatiri is one of the important dual purpose breed of North India. Average daily milk yield of Gangatiri cow ranged between 4-6 liter per day. The lactation length is of 150-250 days. Inter calving period varies between 14-24 month. Coat color of Gangatiri cow is dull white. Muzzle is black, Hump and dewlap are medium. It is known to be originated in the region along the banks of Ganga River in Eastern Uttar Pradesh and Western parts of Bihar state. Gangatiri breed has been recognized as a separate breed by NBAGR-ICAR (Accession no. 03039).

Milk and its products are excellent source of vital nutrients. It is described as nature's nearly perfect food. Milk proteins offer a high quality animal protein in diet. Milk fat fractions are now being recognized to posses interesting anti cancer properties. Minerals and vitamins contents of milk contribute significantly to human nutrition. Calcium is needed for protection against brittle bones in the latter part of life. It is now considered to play a vital role in controlling blood pressure in protecting colon from cancer. Milk and milk products from dairy animals are palatable and easy to digest therefore important human food. Milk, according to the prevention of food adulteration (PFA) rules, is the normal mammary secretion derived from the complete milking of a healthy milch animal without either addition there to or extraction there from. Free from colostrums, contains all the nutrients essential for growth *i.e.* water, fat, proteins, lactose, minerals vitamins and ash and has been recognized as a vegetarian food since ancient times and all Indians consume milk and milk products without reticence. It is especially beneficial for young ones as it contains nutrients for growth and development particularly a sufficient concentration of quality protein, mineral and vitamins. Especially vitamin A, riboflavin and vitamin B12 is also the richest natural source of calcium in the best available form (Pathak, 2003).

MATERIALS AND METHODS

The present experiment entitled "Compositional quality of milk as influenced by interval between milking in Gangatiri Cow's milk of SHIATS dairy farms of Allahabad was carried out. The period of experiment was of three month from (May-July-2016). The cows were subjected to Californian mastitis test and 10 cows (Gangatiri cow) from SHUATS dairy farm with negative test were selected for the study. All experimental animals were housed in a tail to tail barn and managed under more or less similar managemental conditions. Sanitary precautions like clipping of long hair at udder and flank, grooming, washing of hind quarters, wiping udder with