



## Choice of Dairying in the Subcontinent: Cattle or Buffalo

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Traditionally dairying is of three main purposes, 1. Produce male calves for plough purposes, 2. Use of dung cakes and manure for Agriculture, 3. Milk production. Modern successful dairy farming includes slowly adopting farm mechanization to reduce the labor component and use of novel concepts like random checking of milk urea estimation is helpful in feed efficiency of a herd [1], and use of nitrates feeding to methane reduction on this planet (1a). The demand for Milk is an up-trend and continuous because human population growth is continuous and also to meet the gap in per-capita availability of the milk. To meet the demand, India like other countries planned the "Operation flood" program during 1970, now it became World's first position in milk production and consumption [3]. Here the question arises, which dairy animal (cows or Buffaloes) is viable to maintain the dairy farm. Major factors to be considered to choose a cow or buffalo for milk production, based on the end-user's choice i.e. Cow milk is better for consumption and also buffalo milk is mainly used for making milk-based products.

The buffalo populations are significantly higher in Southern Asian countries - India first place followed by Pakistan and China, and the major share of milk production and consumption also higher. To Choose a buffalo as an option for dairying, keep in mind that these animals are excellent feed converters because they utilize coarse fodder; and poor-quality agriculture by-products [4], and synthesize the high fat and protein content of milk [5]. Due to the greater rumen-reticulum weight, the efficiency of net microbial growth was 20% higher in buffaloes [6]. The milk prices are also encouraging due to higher fat (6-9%), and protein content [7].

Buffalo milk is the preferred choice of milk for making heavy foods like paneer, curd, kheer, and ghee [8].

### Why we prefer cows

Selecting crossbred cows makes it possible to have a regular milk supply in all seasons, a high milking period in the lifetime of cows, and increase the average per capita milk availability without any shortage of milk in summer seasons. The cows generally have a higher milk production capacity than buffalo and are physically smaller in size and they have taken the lesser amount of feed. A better feed efficiency ratio is also found in lactating cows than the buffaloes. Therefore, their efficiency can be effectively utilized further, if few tips are followed in the nutrition of crossbred cows like the use of TMR blocks and offer nutritive fodder like "Super Napier" succulent fodder varieties. The cost of cattle is much lower than that of the buffaloes. Eighty-five percent of the milk produced in developed countries comes from cows [9]. If crossbred cows have a milk yield of more than 5000 kg during the lactation period, buffaloes do not exceed just 3000 kg. In countries like Israel, cows give milk over 11,460 kg on average [10]. Cattle are attained puberty at two and a half years. The "Calf -a year" concept is well planned in cow farming. The cows are bred throughout the year so that the milk yield is uniform and continuous. In the case of buffaloes, their age at first mature is of three to four years [11]. The gap between calving was greater in buffaloes. The effect of summer stress is also greater in buffaloes. To increase milk production, establishing of memorandum of understanding between countries to exchange technical information like the "Indo-Israeli Centre of Excellence for Animal husbandry and Dairying, Hisar" program for rapid growth in the dairy sector [12].

According to the Livestock census 2019 in India, the population of the Total exotic and crossbred cows has increased by 26.9% whereas 1% increase in case of buffaloes as compared to previous census, it indicates that the people shifting to the cow milk [13]. It is concluded that dairy farmers should always keep in mind that consumer expectations are a top priority on the choice of milk. Cow milk production is comparatively higher percent change than buffalo milk in recent years, due to consumer demand across the globe and its maintenance is also comparatively easy and economically better. Even though, buffalo milk has gained importance in making milk-based foods due to its high-fat content and export quality across the globe.

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