

## Improving Rearing Techniques of Dairy Animals: Tool for Enhancing Family Income

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### Introduction

India has world's highest livestock population (512.05 million). We are first in the total buffalo population in the world with 105.3 million buffaloes. We have second largest poultry market in the world with production of 63 billion eggs and 649 million ton poultry meat. We have third largest population of 72 million sheep [1]. At the same time we are fifth in the population of ducks and tenth in camel population in the world.

About 20.5 million people depend upon livestock for their livelihood. Livestock contributed 16% to the income of small farm households as against an average of 14% for all rural households. Livestock provides livelihood to two-third of rural community. It also provides employment to about 8.8% of the population in India. India has vast livestock resources. Livestock sector contributes 4.11% GDP and 25.6% of total Agriculture GDP [2].

Livestock plays a vital role in increasing farmer's family income. Livestock provide range of goods and services like huge support in cultivation, irrigation, transport and manure in addition to direct production of milk, meat and eggs. Livestock also provide a social status to the family at villages. Keeping a few milk animals along with poultry and fish as mix forming has tremendous potential to elevate economic status of poorer sections of the society.

Animal husbandry provides employment to millions of inhabitants in rural areas. Women constitute 71 per cent of the labor force in livestock rearing. Rural women play a significant role in feeding, breeding, management and health care of their animals. In dairying, out of 90 million heads involvement, women involvement is five times to men [3].

Farmers of Netherlands have been able to produce very high yields of milk per cow with high compositional quality along with good fertility and high body condition scores whilst using much lower annual levels of concentrates. Our dairy Industry needs to be able to compete with such kind of global market by embracing new technology with little expenditure on milk production for a sustainable and profitable future of dairy farmers [4]. To achieve this headstone, we need to bring about following practices in dairy animal rearing.

### Breeding

Dairy owners should rear high yielding animals of preferably Shahiwal, Shindhi, Gir, Haryana or Holstein Frisian breeds, for the reason that production of less than 8 litres of milk per day by maximum of two animals endow dairying with a no profit no loss situation. Therefore, all efforts should be made to have at least 12 litres

of milk with two or less than two animal. All cross-bred heifers should conceive at the age of 18 months, deshi at 24 months and buffalo heifers at 30 months. After calving animal should conceive within 60-90 days and calves mortality should be approximately 2% to make the dairying profitable. To achieve this calves should be provided with 10% of their body weight colostrums daily, heifer and all adult dairy animal should be provided with fresh high quality feed, 10% their body weight daily and adequate amount of good quality concentrate [5]. Keeping high yielding animal has fantastic potential to bring about considerable change in perception of dairying.

### Feed and Fodder

All effort should be made to provide adequate amount of balanced fodder to keep the dairy animal healthy. Feeding aptly has potential to increase production by 30%. New varieties of fodder should be replaced with older one that have higher sugar levels, higher digestibility, have a higher response to nitrogen, palatable to animals and make better silage using considerably less fertilizer with provision of adequate amount of phosphorous, potash and sulphur. Bear in mind that nitrogen cannot be utilized effectively, if other major nutrients are deficient. Cutting more frequently produces higher yields of forage per acre per year, with higher energy and higher protein values. Moving from a two cut system to a three or four cut system can produce higher forage output per acre as well as higher output per cow from reduced concentrates [6].

It is a fact that over 30% of energy yield and dry matter yield in a growing crop to be lost during conservation, storage and feed out. We have the expertise to considerably reduce these losses. Silage inoculants may be used to reduce crop losses. During scarcity of green fodder alternate fodder should be used and utmost care must be taken to provide necessary energy, minerals and other nutrients as well as adequate amount of dry matter.

### Housing

It has been pragmatic that animal owner do not pay requisite consideration for ventilation, slope of drainage disposal system, animal bath, watering and grain feeding facilities in animal houses that requires mental exercise but bring about incredible improvement in production performance [7]. For example in hills there is lacks of provision of ventilation, solely responsible for 50% reduction in production. A manger and drinking water provision again has potential to enhance per animal milk production.

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## Animal Health

Production is severely affected by diseases. Infectious and parasitic diseases, residues of pesticides, chemicals, antibiotics and heavy metals in livestock and their products are critical both for human and livestock health. Knowing the cost of common diseases can help dairy farmers and their veterinarians plan treatment and prevention strategies that are likely to improve the profitability of the dairy. Adequate health care can enhance productivity by 20%. Regular and timely vaccination and deworming of the animals is an excellent health practice and can boost the dairy business as well [8]. The farmer should understand that the cost of vaccination is always lesser than the loss incurred due to production loss or loss due to death of the animal. Timely vaccination and deworming programs should be apprehended to keep the cattle healthy.

## Conclusion

Livestock farming, especially dairy farming is an occupation next to agriculture serving as a source of livelihood and a tool for economic growth. This occupation has been a part of our lives since ages and holds promise for a successful business viewing its enhanced potential. The dairy animals play an important role in agriculture and economy

and have potential to enhance economy by 200% through milk and their value added products.

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