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STRATEGIC FEEDING AND FEED RESOURCES FOR SUSTAINABLE MILK PRODUCTION

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Feeding system and nutrition are two major determinant factors of sustainable milk production. Ruminants are unlike monogastric livestock, they require feeding round the clock, due to its anatomical and physiological nature of the highly specialized digestive tract. Nutritional requirement of the cow is mainly obtained from roughage based feeds and about 80% of the digestion is microbial based. In feeding ruminants one have to consider not only the requirements of the animal but also the microbes that assist the digestion.

The availability of feed for ruminants is another limitation in present day dairy production. Considering the cost involved and the land pressure, cultivation of forages in the limited land area of the resource poor dairy farmer is unrealistic. Therefore, crop residues and agro industrial by products with other non conventional feed stuffs should be able to satisfy the bulk requirement of the animal. Rice straw is one of the major feed source extensively available but rice straw alone cannot provide required nutrients, due to low bio availability and digestibility. Sugarcane by products also available extensively along with other cereal and pulse straws. However, not even 15% of these crop residues are properly used in feeding dairy livestock. In addition, enormous quantities of other non conventional feeds are also available in the country. India the worlds largest milk producer, more than 80% of the nutritional requirements of their dairy animals are obtained through crop residues and agro industrial by products.

Quality of these by products can be elevated by supplementation. Digestibility of straw can be increased from 28% to 52% by supplementation alone. Generally, supplements are expensive and high in demand. Tree fodder play a vital role in utilizing the roughage by elevating the digestibility and inducing a substitutional effect. This can be easily and economically obtained. Urea molasses mineral block (UMMB) is the latest feed supplement introduced to the Sri Lankan dairy animals and presently it is satisfactorily used. This UMMB has a dual effect; as a catalyst by improving the rumen conditions for rumen microbes for efficient roughage digestion and as a supplement to satisfy the deficient nutrients in the basal roughage. UMMB is easy to use and the cost is about 30% of the traditional supplements for similar performances. Presently using different feeding strategies and appropriate supplements, local dairy farmers realized the importance of economical and sustainable. milk production.